A SEGMENT OF THE BELT LINE RAILWAY: an inventory and analysis of its development potential for bikeways

CITY OF TORONTO PLANNING AND DEVELOPMENT DEPT
STEPHEN G. McLAUGHLIN, COMMISSIONER MARCH 1985

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Cover photograph: Moore Park Station on the abandoned belt line circa 1910. The entire ravine beyond Moore Avenue has since been filled and is now part of Mount Pleasant Cemetery. Photograph from the James Collection in Toronto City Hall Archives.

City of Toronto
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Reference / Subject:

Dear

This report was written by Wayne Renaud as a summer student under the direction of the Planning and Development Department's Urban Design Group.

The belt line right-of-way represents a section of a once operating railway that exists today as a reminder of Toronto's past. From a recreational standpoint the essential aspects of the belt line is its linear and continuous nature. Although parts of the belt line are already being used for recreation with modification through Mount Pleasant Cemetery and over Yonge Street, it would be possible to cycle or jog north through Moore Park ravine and then west to the Allen Expressway along an offstreet green corridor. Within a broader context the belt line is also a vital link within a city wide off-street bicycle network.

The belt line is a unique landscape within the City. Therefore, a summer was spent mapping its historical and biophysical features. This report documents the belt line's natural and man made history to the present time. The second part of the report deals with the belt line's potential as a bikeway. Mr. Renaud's recommendations for such development are suggestions only at this stage and do not represent any official position of the Planning and Development Department.

City of Toronto
Planning & Development Department

Negotiations are currently underway between the Canadian National Railway and the City concerning the development of portions of the belt line for commercial and residential uses. These negotiations may also result in the dedication of the remainder of the belt line to the City. It is hoped that this report can aid such relevant discussion by providing a resource outlining the belt line's varied features and potential.

Yours truly,

Stephen G. McLaughlin
Commissioner

EJP:ip

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Angus Cranston provided information on zoning and proposed developments along the Belt Line corridor, and Neil Melman offered advice on routings between the Allen Expressway and the Humber River. Helen Jahola and Mary Smith provided insights into the natural history and value of Moore Park Ravine.

I thank Ken Greenberg and Mary Lynn Reimer for offering guidance, criticism and much freedom throughout the course of this study.

1. INTRODUCTION

As part of a continuing program designed to expand cycling opportunities in the City of Toronto, the Urban Design Group initiated a study of the old Belt Line Railway (Figure 1) as a potential bikeway.

There are several advantages to establishing the Belt Line easement as a recreational corridor suitable for cycling and walking:

1. The easement is still intact, with a few exceptions and hence offers the potential for continuity.

2. The corridor has a strong theme, the Belt Line Railway, which can be used as the core of a cultural interpretive program.

3. The easement connects a series of diverse and interesting cultural and natural features.

4. The easement fits in well with proposed and existing bikeways and, if completed, will provide a continuous circuitous bicycle path around Metropolitan Toronto that will include the lakeshore, the lower Humber River and the middle Don Valley.

This study provides the inventory and analysis of the existing Belt Line easement from the Lakeshore to the western C.N.R. trunk line near Carnavan Street. The emphasis is on the segment within the City of Toronto from the Don Valley to the Allen Expressway.

The following is a list of goals and objectives for the development of the bikeway along this route:

GOAL:

To inventory and analyze the biophysical and cultural features that influence the proposed bicycle routes along the former Belt Railway easement in the cities of Toronto and North York.

OBJECTIVES:

1. To assess the biophysical resources of the easement and surrounding areas and identify opportunities and constraints.

2. To identify and rate for appropriateness the key existing features of the historic Belt Railway Line (historic/cultural interpretation).

3. To identify opportunities for natural history interpretation in natural areas and open spaces along the route.

4. To identify and suggest connectors to existing bicycle and pedestrian routes in adjacent areas.

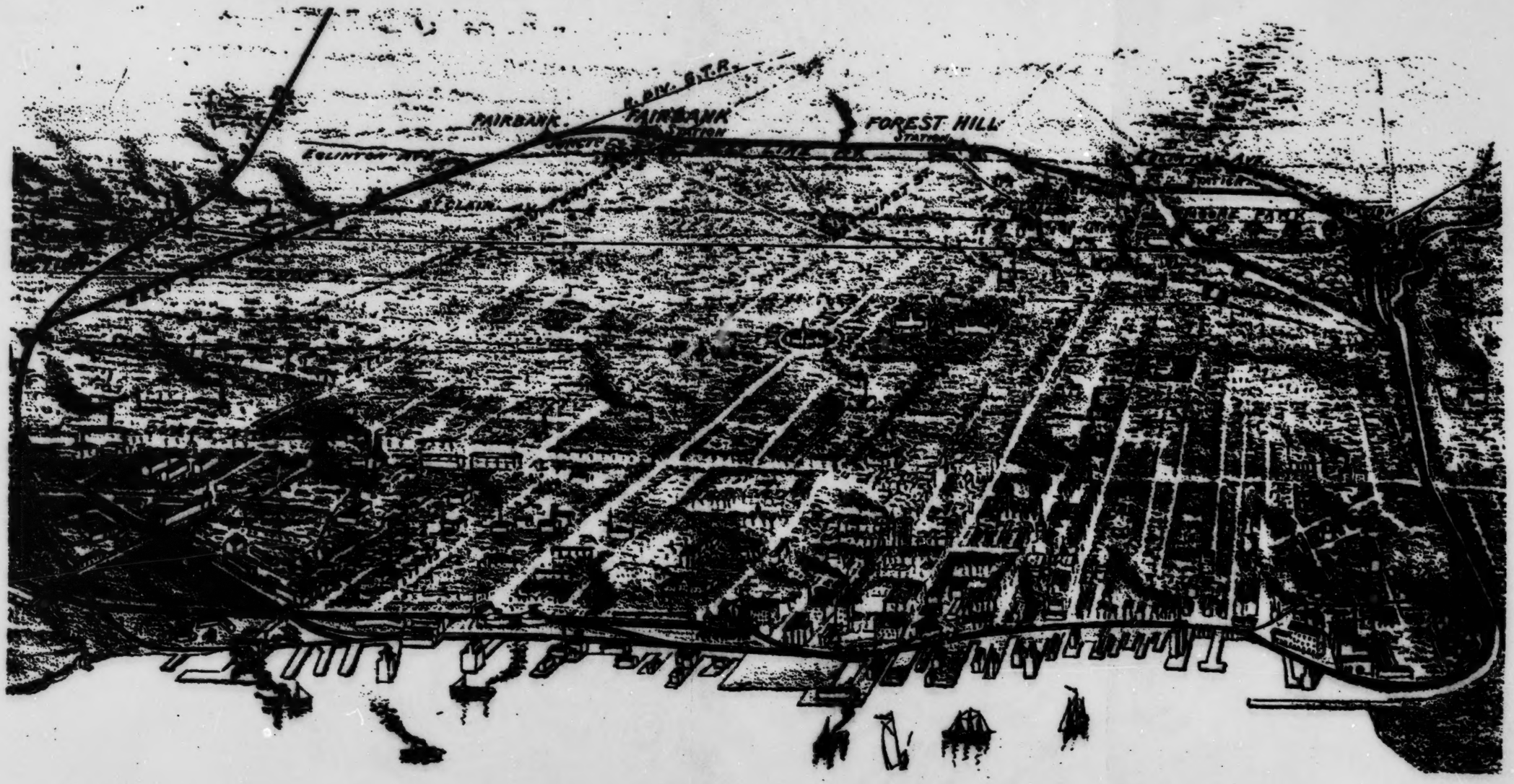


Figure 1. Map of Belt Line Railway

5. To assess the appropriateness of combining pedestrian traffic and bicycle traffic along the easement and indicate how potential conflicts may be minimized.

6. To identify, describe and offer alternatives to conflicts between the intended uses of the railway easement, and existing and proposed adjacent land uses.

7. To identify, describe and offer alternatives to, interactions between, the intended uses of the railway easement and adjacent existing and proposed circulation patterns.

8. To provide jurisdictional information and describe any problems related to the intended uses of the railway easement.

9. To identify and prioritize the procedures necessary to implement the proposed development of the Belt Line bikeway.

Two connectors essential for the completion of the entire circular routing within Metropolitan Toronto are also considered within the framework of the proposed bikeway plan.

1. Allen Expressway to C.N.R. trunk line near Carnavan Street (mostly within Borough of York). The tracks are intact along this segment, and C.N.R. still uses the easement at infrequent intervals.

2. Don Valley from Rosedale Valley Road to the lakeshore. An engineering feasibility study of this critical segment was completed by a consultant in 1983 (Marshall Macklin Monaghan 1983).

2. HISTORY

The history of the Belt Line Railway is a typical story of boom and bust brought about by an oscillating economy and consequent changes in land values and the fortunes of land speculators. A rapidly expanding real estate market in the late 1880's culminated in 1988 with the annexation of Riverdale, Rosedale, the Annex, Sunnyside and Parkdale into the City of Toronto. The Toronto Belt Line Company was formed by a group of Toronto businessmen in 1889; their objective was to develop land in the surrounding suburbs. They envisioned a commuter railway that would conveniently connect these new outlying areas with the existing City of Toronto. In spite of an end to the land boom by 1890, the company forged ahead with the project.

The original plan called for a single loop that extended east along the lakeshore, north along the lower Don Valley, northwest up Moore Park Ravine, through the communities of Forest Hill and Fairbank, then south to connect with the existing Grand Trunk Railway along the lakeshore. The plan was later modified to include two loops, one basically as described above and a smaller loop that included the Humber River Valley (Fig. 1). A spur line connected the two loops north of St. Clair Avenue.

The railway opened in July 1892 and operated for 28 months. By 1900 the entire line had been converted to industrial spurs and storage tracks; parts of the line were given to municipalities as compensation for overdue taxes. By 1904 only five miles of operative Belt Line track remained within the City of Toronto. In 1923 the remaining track was taken over by the C.N.R. In 1970 the C.N.R. announced that service would be discontinued on the remaining 2.8 miles of operative track in the City.

At present no track remains along the route from Marlee Avenue to lower Moore Park Ravine. The section of track from Marlee Avenue to its junction with the main north-south C.N.R. trunk line near the west end of Bowie Avenue is still used at infrequent intervals by C.N.R. As abandonment of the line proceeded within the City of Toronto, the easement became increasingly utilized as a pedestrian and cycling route. At present, the former Belt Line easement from the Allen Expressway eastward may be continuously traversed on foot or by bicycle except at two locations:

1. Yonge Street/Yonge Subway overpass, and

2. South of Merton Street from Yonge Street to just east of Mount Pleasant Road.

3. PREVIOUS STUDIES

In 1974 W. Strok and Associates Ltd. provided the Municipality of Metropolitan Toronto with its first masterplan for a comprehensive bikeway system. Until this time, no serious attempt had been made to co-ordinate the existing trails into a uniform and continuous opportunity for cycling. Priorities in planning had traditionally been given to pedestrian and bridle path development; these plans ensured the preservation of the linear corridors that would later be considered for cycling. For example as early at 1960, the City of Toronto Planning Board published "Natural Parklands" which suggested the incorporation of the Belt Line along Moore Park Ravine into a walking trail system that would include Mount Pleasant Cemetery, Vale of Avoca Ravine, David Balfour Park and Park Drive Ravine.

The Metropolitan Toronto Bikeway System (W. Strok and Associates Ltd. 1974) did not recognize the importance of establishing a grade-separated bicycle corridor along the former Belt Line easement between the Don Valley and the Humber River. They did, however, acknowledge the use of Moore Park Ravine as an existing bikeway. Connectors between the Don Valley and Humber River were planned as discretionary street routes that were independent of existing open space systems.

From November 1977 to March 1978, Barton Aschman (Canada) Ltd. prepared a series of working papers on various aspects of bikeway use and development within the City of Toronto; they did not consider the potential of the Belt Line link between the Humber River and Don Valley bicycle trails.

The most recent related study conducted for the lower Don Valley was completed in 1983 (Marshall Macklin Monaghan 1983).

4. BIOPHYSICAL RESOURCE INVENTORY

The following section summarizes the existing biophysical features and their opportunities and constraints relative to cycling along the Belt Line easement. These descriptions deal mostly with broad design issue; at the onset of this study the decision was made to avoid dealing with issues that were of minor importance in determining the general design of the bikeway, such as the locations of individual trees and shrubs, and condition of backyards. Such details, if required, could be gathered later during the detailed design phase.

The descriptions which follow are arranged in Belt Line segments from west to east. Maps 1 to 6 (located at the back of this report) summarize the more important biophysical features covered in these verbal descriptions. Note that these maps do not correspond exactly to the section numbers. For example, the verbal sections "Allen Expressway to Bathurst Street" and "Bathurst Street to Eglinton Avenue" are incorporated in Map 1; and there are two maps (Nos.#5 and #6) that include parts of Moore Park Ravine.

4.1 TOPOGRAPHY AND DRAINAGE

4.1.1 Allen Expressway to Bathurst Street

The entire easement from the Allen Expressway to Bathurst Street is essentially flat; a slope of less than 1.0% occurs from east to west. There appears to be little run-off from adjacent areas onto the right-of-way. The lack of an even slope and considerable micro-topographic variations brought about by irregular grading (or lack of grading) of the existing path have resulted in severe ponding during periods of high precipitation in three areas:

1. Between approximately 16 Alburn Road and 111 Ridge Drive. Detouring around the wet area has resulted in widening of the pathway.

2. Immediately west of the Old Park Road intersection.

3. A wide area extending from approximately 67 Elm Ridge Drive to 33 Elm Ridge Drive.

OPPORTUNITIES AND CONSTRAINTS

Existing ditches, though mostly less than 0.5 m below pathway level, appear to be adequate for catching and holding runoff from the right-of-way and immediate

adjacent areas. It is anticipated that regrading of the road-bed together with the addition of some fill in problem areas will solve existing drainage problems.

4.1.2 Bathurst Street to Eglinton Avenue

The Belt Line easement slopes southeastward very gently from Bathurst Street to the Eglinton Avenue underpass; the slope averages 1 to 2%. A ditch varying from 0.2 m to about 0.7 m below the level of the walkway occurs through the length of this segment. The easement is well-drained and no ponding problems have been observed on the existing pathway, nor is there any indication of excessive run-off from adjacent areas.

OPPORTUNITIES AND CONSTRAINTS

The existing slope and drainage characteristics do not provide problems for cyclists, hence no constraints are recognized. The evenness and shallowness of the slope provides ideal cycling opportunities in both directions.

4.1.3 Eglinton Avenue to Avenue Road

An even slope of about 1.0% occurs from Eglinton Avenue to Avenue Road. Run-off from the easement and adjacent areas is readily accommodated in the existing 0.3 to 0.7 m deep ditches along the pathway. Some minor ponding occurs sporadically throughout the area, entirely a result of uneven grading in the gently sloping railway bed. The lots on the north-east side of the easement are much higher than the south-west side and it is expected that during periods of very heavy precipitation the ditches on the up-slope side may become filled with water but it is doubtful if these would significantly alter the drainage characteristics of the existing pathway.

OPPORTUNITIES AND CONSTRAINTS

The existing slope and drainage characteristics pose no problems for cycling. The eveness and shallowness of the slope create excellent cycling opportunities.

4.1.4 Avenue Road to Yonge Street

The easement from Avenue Road to Yonge Street provides an even slope of less than 2%. The ditches are adequate to handle existing run-off in all areas. No serious problems with ponding occur on the roadway surface.

OPPORTUNITIES AND CONSTRAINTS

No constraints have been identified. Existing slope and drainage characteristics are considered ideal for cycling.

4.1.5 Yonge Street to Mount Pleasant Road

Merton Street between Yonge Street and Mount Pleasant Road originally contained a high point from which drainage occurred towards ravines to the east and west. Extensive filling and regrading have modified this pattern; now the highest point along the railway right-of-way appears to be at the rear of 267 Merton Street. Slopes are gradual (generally less than 1%) and even, except near the east end where a slope of 2% to 3% occurs behind 271 Merton Street.

Most precipitation falling on the parking lot on the western part of the easement and areas to the rear of the Public Works Building and Dominion Coal and Wood Co. is ponded and evaporates or percolates into the soil. The railway bed and adjacent ditches are still intact along the easement from south of 117 to 267 Merton Street.

Poor drainage and wet soil are most apparent south of 195, 225, 253 and 267 Merton Street; standing water occurs intermittently in pools along the ditches. At this point, the railway bed is 0.2 to 0.4 m above the ditches, and hence the moisture content of the railway bed is greatly affected by the drainage characteristics of the surrounding area. The dumping of used oil into these ditches has apparently contributed to decreased permeability of the soils.

OPPORTUNITIES AND CONSTRAINTS

No slope constraints are identified. The drainage problems occurring at the rear of 225 may be solved with the addition of porous fill and raising the level of the existing pathway.

4.1.6 Mount Pleasant Road to Moore Avenue

The easement originally followed the upper extension of the Moore Park Ravine channel north-west to near the rear of Dominion Coal and Wood Co. Filling of the ravine has modified the original drainage pattern of the easement. Precipitation falling on areas near the Mount Pleasant bridge is collected in a ditch along the north-east edge of the easement. The water which is collected in this ditch flows into an underground storm sewer and eventually into Moore Park Ravine. Slopes along the easement are now about 2%.

Drainage along the remainder of the easement is generally in a south-easterly direction towards Moore Avenue. The slope is very gentle; most precipitation apparently is accommodated by local percolation, evaporation or in the case of extreme flooding, drainage into storm sewers along Moore Avenue. No storm sewers are located within the easement in Mount Pleasant Cemetery.

OPPORTUNITIES AND CONSTRAINTS

No constraints identified. It may be necessary to refill the north-west part of the easement to bring it well above the level of the surrounding ditches. The slopes are considered ideal for cycling.

4.1.7 Moore Park Ravine

About 98% of the easement between Moore Avenue and the Bayview Extension has slopes of less than 5%. Two steeper areas occur:

1. The uppermost 225 feet. The 100 foot section adjacent to Moore Avenue has a slope of more than 15%, the next 50 feet has a slope 10-15% and the remaining 75 feet has a slope of 5-10%. This entire section is the only part of the ravine with asphalt surfacing.

2. A section of about 250 feet located approximately 400 feet below the Heath Street walkway.

This section has a slope of 5-10%. The enclosing valley walls have slopes ranging up to 100%. In spite of the relatively natural setting of Moore Park Ravine, the construction of the old railway bed, together with more recent construction of storm sewers has greatly altered the drainage characteristics of the lower parts of the valley. The existing drainage problems are of three types:

1. Inadequate ditches along the easement. Run-off from adjacent slopes floods the trail either at the point of intersection or further down the path where shallower slopes or a change in the direction of the trail causes surface water to flow onto the trail.

2. Piping along the valley wall. In itself, this condition has not adversely affected the quality of the trail, but combined with excessive surface run-off, the affected areas become quickly water-logged and local flooding may result.

3. The most serious drainage problem is caused by the storm sewer pipe below Governor's Bridge. This pipe releases water onto the side of the existing trail. This water runs along a natural gutter for a distance of about 300 feet before crossing the easement and flowing into the open storm sewer on the north-east side of the easement. The rapid outflow during periods of moderate to high precipitation may cause severe flooding on parts of the existing pathway; erosion of the easement also occurs where the flowing water crosses the path.

Other drainage problems are considered minor and are the result of inadequate grading of the roadway, too little grade separation between the pathway and the ditch, or both.

Ponded water on the site is restricted to one location in the upper valley near Moore Avenue. The water level of this pond was judged to be less than 1 m in depth and varies with the seasonal changes in evaporation and precipitation. An overflow into the ditch north of the easement prevents flooding of the existing trail.

OPPORTUNITIES AND CONSTRAINTS

Drainage problems present on the site are considered minor. The watershed areas involved are small and frequently flooded; poor drainage on the trail can be handled in several ways:

1. regrade with a coarse granular sub-base and asphalt surfacing,

2. redirect and channelize drainage below the trail and into the nearest storm sewer or creek channel,

3. deepen ditches along trail to allow preciptation to run off more efficiently. The problem created with the storm sewer pipe below Governor's Bridge can be solved with the addition of a section of buried pipe located below the easement and draining into the adjacent storm sewer channel; this distance is about 12 m.

4.2 VEGETATION

4.2.1 Allen Expressway to Bathurst Street

From the Allen Expressway to Bathurst Street, large trees are limited to a row of poplars along the south side of 2400 Bathurst Street and some scattered medium-sized shade trees along the backs of yards bordering the easement. Between the Allen Expressway and Old Ridge Road, the shrubs and small shade trees form a nearly continuous band of vegetation on either side of the easement. Medium-sized shade trees are more prevalent adjacent to the easement between Old Ridge Road and Bathurst Street. Like the area west of Old Ridge Road, deciduous flowering shrubs occur along the back fences of most yards, thus enclosing the easement in a well-defined green space. The only large planting of conifers is located between the easement and the unnamed circular park at the junction of Old Park Road and Ridge Drive.

OPPORTUNITIES AND CONSTRAINTS

No major constraints are identified. Additional plantings of large shade trees should be considered to complement existing vegetation and diversify the easement.

4.2.2 Bathurst Street to Eglinton Avenue

Vegetation along this section of easement is relatively sparse. The most extensive shade trees occur in the westernmost sector adjacent to several large appartments at 650 and 660 Eglinton Avenue, but elsewhere are relatively scattered along the easement. In the central parts of the sector, the right-of-way opens out to green turf to the north-west and south-east. Chaplin Crescent is separated from the easement for part of the distance by a row of flowering crab apple trees.

OPPORTUNITIES AND CONSTRAINTS

No constraints are identified.

4.2.3 Eglinton Avenue to Avenue Road

This sector contains the best developed vegetation on the easement west of Moore Park Ravine. For the most part, this is due to the presence of large stands of shade trees in the backyards of lots adjacent to Ormsby Crescent. The marked grade change between the houses along the crescent and the rear portions of lots offers a transition from a very formal to a natural setting.

The Belt Line easement provides a well-defined corridor of vegetation linking the more substantial tree groves between Eglinton Avenue and Avenue Road.

OPPORTUNITIES AND CONSTRAINTS

No constraints are identified. It is suggested that some additional planting of shrubs or vines be considered along the 15-foot retaining wall at the rear of 321 Chaplin Crescent. The vegetation is otherwise well-established and serves to enclose the easement in an attractive green envelope that provides a welcome relief from the surrounding urban setting.

4.2.4 Avenue Road to Yonge Street

The vegetation between Avenue Road and Yonge Street provides a variety of visual experiences due to varied spacing and form of the species present. The pathway is well-defined throughout by the vegetation border, but becomes heavily overgrown at the south-east end of the section between the Oriole Parkway and Lascelles Boulevard.

OPPORTUNITIES AND CONSTRAINTS

Some removal of vegetation will be required between the Oriole Parkway and Lascelles Boulevard to provide for unencumbered two-way bicycle movement along the easement.

It is suggested that additional planting of shrubs and/or vines be considered for the enhancement of the concrete walls on the south-west side of the segment between Lascelles Boulevard and the subway tracks. As noted on the section "Existing Circulation", the proximity of the Frobisher Avenue/Lascelles Boulevard intersection and the Frobisher Avenue/Oriole Parkway intersection to the easement creates safety problems, hence more open views may be desirable.

4.2.5 Yonge Street to Mount Pleasant Road

Vegetation occurs in four main areas along the Belt Line easement:

A. The shrubs and small trees surrounding the east end of the Yonge Street overpass. These consist mostly of Manitoba maple, apple and lilac.

B. Border plantings to the south of 111 (in part), 113 and 115 Merton Street; these are mostly Manitoba maple.

C. A heavily overgrown area from 117 east to 195 Merton Street. This area is dominated by ash, willow, poplar and red-osier dogwood.

D. A heavily overgrown area similar to the above, but wetter, extending from 195 to 267 Merton Street. The major vegetation consists of elm, Norway maple, Manitoba maple and wild rose.

Large trees along the northern edge of Mount Pleasant Cemetery overhang virtually the entire south side of the easement from Yonge Street to Mount Pleasant Road. Only one large shade tree occurs on the easement proper; it is an oak located near the rear of 35 Merton Street.

OPPORTUNITIES AND CONSTRAINTS

Considerable revegetation should be installed in the eastern and western segments of the easement where parking and storage areas are now located. Vegetation removal will be required in an area extending from approximately 119 to 267 Merton Street since the existing pathway is very narrow or non-existent.

4.2.6 Mount Pleasant Road to Moore Avenue

The Belt Line Railway originally passed thorough an upper extension of Moore Park Ravine between Mount Pleasant Road and Moore Avenue. All native vegetation has been removed from this section of easement and the ravine has been filled. Today, there is a difference of only a few metres between the grade of the Belt Line easement and the surrounding area. A small number of ornamental shrubs and shade trees have been planted along the easement within the present cemetery boundaries; the greatest number of shrubs and trees occurs to the east of the Mount Pleasant office building. The entire easement within the cemetery is covered with turf grasses.

The unused easement to the east of Mount Pleasant Road has overgrown to Manitoba maples, willows, elms, grasses and weeds. The presence of numerous old tree stumps suggests that some periodic "maintenance" is being conducted. The cemetery has planted honeysuckles and other flowering shrubs along the chain link fence adjacent to the easement, probably in an attempt to hide the neglected right-of-way from persons visiting the cemetery.

OPPORTUNITIES AND CONSTRAINTS

Considerable landscaping will be required near the Mount Pleasant underpass in order to create a more visually pleasing transition between the cemetery grounds and the Belt Line easement, and to define the proposed access route off Merton Street.

The route within the cemetery should follow existing internal circulation corridors and hence planting would be under the jurisdiction of the Toronto Trust Cemeteries. It is recommended that some attempt be made to define the exit along Moore Avenue with a planting scheme. Ideally, it would be desirable to create an extension of Moore Park Ravine into the cemetery in an attempt to establish a former gradual transition between the natural woods of the Don Valley and tributaries and the high-manicured grounds of Mount Pleasant Cemetery. However, given the present mandate of the cemetery and the need to set aside future burial areas, it seems unlikely that a well-developed "transition" can be created.

4.2.7 Moore Park Ravine

The only detailed vegetation survey of the Belt Line is for the section of Moore Park Ravine from Moore Avenue to Chorley Park (Wainio et al 1974). The study identified four major habitats of which "grassland", "marshland" and "wet land" appear to be atypically classified. The authors specifically described four areas with uncharacteristic and/or unusual vegetation.

1. "Grasslands". This comprises the existing easement and associated open areas that are dominated by graminoids and herbacious vegetation.

2. "Wetland" Forest.

3. Former "Marsh".

4. Mesic and Dry Forest communities.

The mesic and dry forest communities contain no well-defined groupings of species. However, several trends are evident. While the ravine community contains a large number of native forest species, many exotics have been introduced from adjacent yards and have become naturalized in the area. Appendix A contains the vegetation analysis presented in Wainio et al (1974).

The lower part of Moore Park Ravine (below the area covered by Wainio et al 1974) differs markedly from the central and upper sections in that it contains a greater variety of hardwoods typically found in more southerly forests; these include bitternut, shagbark hickory and black walnut. The trees and forest edges are also more luxuriously festooned with vines such as Virginia Creeper and Wild Grape; they provide a greater amount of greenery during the summer period and more spectacular fall colour.

The habitat diversity of the Moore Park Ravine segment offers a gradation from natural maple-beech forest to open spaces that have been, and are being, planted to a variety of exotic species. A planting program was initiated by the Metropolitan Toronto Parks Department aimed at "filling in" some of the existing open spaces, particularly between Chorley Park and the quarry and at the base of the ravine around the pumping station. Objectives of the planting program were:

1. to provide aesthetic beauty,

2. to reduce maintenance by crowding out weed species,

3. to provide food and shelter for wildlife, and

4. to control erosion.

An attempt was made to use native species and varieties but a considerable number of exotic forms have been used. Table 1 summarizes the forms that have been planted.

Table 1. List of trees and shrubs that have been planted in Moore Park Ravine (from Wainio et al 1974)

amur maple (Chinese) (Acer ginnala Maxim.)

black elderberry (Sambucus canadensis L.)

carolina poplar (Populus canadensis Moench)

climbing bittersweet (Asian) (Celastrus orbiculata Thumb.)

high-bush cranberry (European) (Viburnum opulus L.)

juneberry (Amelanchier canadensis (L.) Medic.)

morrow honeysuckle (Japan) (Lonicera Morrowi Gray.)

multiflora rose (Rosa multiflora Thumb.)

nannyberry (Viburnum lentago L.)

red maple (Acer rubrum L.)

red oak (Quercus rubra L.)

red osier dogwood (Cornus stolonifera Michx.)

Siberian elm (Ulmus pumila L.)

Siberian peashrub (Caragana arborescens Lam.)

snowberry (Symphoricarpos albus (L.) Blake.)

sugar maple (Acer saccarum Marsh.)

tartarian honeysuckle (Lonicera tartarica L.)

trembling aspen (Populus tremuloides Michx.)

white ash (Faxinus americana L.)

white or Boleana Poplar (Populus alba L.)

A large landslide occurred at Chorley Park in the spring of 1973. This was apparently triggered by blasting in the adjacent Don Valley Brickworks quarry (Helen Jahola, pers. comm.). The existing slope appears too steep to be effectively managed as turf and has not been naturalized with shrubs. At present the slope is covered by long grasses.

The only area within the ravine that is being managed as an open green space is located around the pumping station at the base of the ravine. The lawn is maintained in a park-like setting, but receives relatively little use for passive recreation.

OPPORTUNITIES AND CONSTRAINTS

The qualities of Moore Park Ravine as a circulation corridor bound within a well-defined open space are self-evident. The variety of terrestrial vegetation communities and dependent wildlife species greatly enhances its potential as a natural interpretive feature within an urban setting. The opportunities therefore lie in the examples of both natural and controlled systems that typify the southern Ontario landscape. It is recommended that its capacity as an educational tool be recognized within the context of the Belt Line Bicycle route. At least four interpretive stops should be established that explain aspects of representative and/or unique ravine habitats. These stations would include an explanation of:

A. The oak-maple component of the Great Lakes-St. Lawrence Forest Region. This should be located upstream from Chorley Park.

B. The southern hardwood components of the Deciduous Forest Region. This would be located along the lower ravine between Don Valley Brickworks and the sewage pumping station.

C. Black Willow riparian community. This is best located along the stream below Chorley Park.

D. Forest clearings illustrated by sumach/grape/virginia creep/poison ivy communities. This is best located along the right-of-way below the Don Valley Brickworks.

Appendix A lists several other unusual vegetation features and communities which could be incorporated into the interpretive features of the Belt Line.

Some widening of the existing pathway may be carried out without adverse effects on vegetation communities. However, nodal areas should be located in existing open spaces which do not require removal of large trees.

4.3 WILDLIFE

4.3.1 Allen Expressway to Bathurst Street

4.3.2 Bathurst Street to Eglinton Avenue

These two sections contain consistently open habitat edges that are used extensively by typical backyard birds, especially American Robin, American goldfinch, morning dove (one nest found in a spruce at Old Ridge Road) and common grackle. The diversity of other animals is probably low. This species composition is typical of most 10-30 year-old suburban areas of the city.

OPPORTUNITIES AND CONSTRAINTS

None specifically identified. Diversification of the easement will probably serve to increase the variety of wildlife that uses it. It would be desirable to achieve a nearly maintenance-free habitat that does not rely on frequent cutting and spraying programs. Natural areas tend to have a greater number of micro-habitats, a more diverse insect fauna and hence provide more types of food for more wildlife species. Heavy application of insecticides, herbicides and fungicides should be avoided.

4.3.3 Eglinton Avenue to Avenue Road

This segment of the Belt Line is mostly heavily overgrown with native and exotic trees and shrubs. The overall effect is a green canopy which is inhabited by robins and warbling vireos, indigo buntings and cardinals. The lush regrowth provides a natural extension of the large backyards that abutt the easement in several areas. The significance of the easement to mammals and reptiles is unknown, but it presumably offers some habitat to racoons and several species of rodents.

OPPORTUNITIES AND CONSTRAINTS

In all future developments an attempt should be made to preserve the existing habitat along the easement. Increased use of the area by people will likely result in decreased use by some species of wildlife, but direct disturbance will be limited to the lower vegetation

levels; the upper canopy can continue to be used for foraging and nesting by many species.

4.3.4 Avenue Road to Yonge Street

This segment contains a mixture of habitat types ranging from secluded glades to open pathways. While less important to wildlife than extensive natural areas, it nonetheless provides food and shelter for species residing in adjacent areas.

OPPORTUNITIES AND CONSTRAINTS

No constraints are specifically recognized. Relandscaping of parts of the easement should be done with the food and shelter requirements of wildlife in mind.

4.3.5 Yonge Street to Mount Pleasant Road

No systematic observations of wildlife are published for this area. It is expected that breeding birds in Mount Pleasant Cemetery also use that section of the railway easement that has become densely overgrown with shrubs and trees. The closed lower layers of vegetation within the easement regrowth provides habitat not available in the well-manicured cemetery grounds, and hence it may be expected that some species of birds and mammals may occur here that would otherwise be absent in the area. The overgrown condition of paths along the easement suggest that little human traffic occurs through the area; this, together with the lushness of the vegetation, may be factors contributing to the presence of some migratory species such as thrushes that normally prefer the security of quiet woodlands.

OPPORTUNITIES AND CONSTRAINTS

No constraints are specifically identified. Future planting should complement the food and shelter provided within the easement and in adjacent Mount Pleasant Cemetery.

4.3.6 Mount Pleasant Road to Moore Avenue

The removal of natural vegetation from the original ravine channel (through which the Belt Line travelled) has greatly altered its significance as a wildlife habitat and corridor. Today, the Belt Line easement remains the poorest wildlife habitat within Mount Pleasant Cemetery because of its extensive monotypic turf cover and lack of a well-developed canopy of trees and

shrubs. The surrounding cemetery grounds provides good habitat for a few wildlife species (especially robins, orioles, vireos, cedar waxwings and grackles), but is much lower in overall richness than most native deciduous forest types and is almost certainly less diverse than the woods that formerly existed on the site.

The significance of the cemetery grounds to terrestrial mammals is unknown. Opportunistic observations suggests that the population of gray squirrel is relatively high. Presumably it provides foraging habitat for several species of bats and is probably used by racoons and several species of small nocturnal rodents.

OPPORTUNITIES AND CONSTRAINTS

In view of the monotypic characteristics of the cemetery and its marked transition with the ravine to the south, it would be desirable to achieve some habitat transition between these two very different spaces. This would strengthen the habitat corridor between the two areas.

4.3.7 Moore Park Ravine

Moore Park Ravine is the only part of the Belt Line for which systematic wildlife surveys are available. Breeding Bird surveys were conducted in the central and upper parts of the ravine in 1966 and annually from 1971 to 1982; these were published in 'Audubon Field-Notes' and 'American Birds'. Wainio et al (1973) discussed the significance of the park based mostly on observations made in 1973.

Two factors appear to be responsible for the great wildlife diversity present in the ravine:

1. great habitat diversity, and

2. relatively undisturbed nature of the site.

Wainio et al (1973) classified four habitats: grassland, marsh, wetland and forest. The actual amount of "marsh" and "wetland" present is very small and both are more characteristic of "forest clearing" communities or sub-communities. Similarly, the "grassland" habitat is not true grassland, but rather is open grassy habitat that supports few true grassland wildlife species. It is more appropriate to attribute the existing wildlife diversity to the variety in forest layer development (including the introduction or naturalizing of many exotic food and shelter plants) and the great amount of woodland "edge" available.

Because of its linear configuration and the absence of any major obstacles, Moore Park Ravine provides a significant wildlife corridor. The links with similar adjacent habitat (e.g. Park Drive Ravine and Rosedale Ravine) probably account for local sightings of mammals such as white-tailed deer and red fox (Wainio et al 1973).

OPPORTUNITIES AND CONSTRAINTS

The major challenge related to development of a bicycle path along the existing Belt Line easement is to maintain the integrity of the existing wildlife habitat. At present, the linear nature of the walkway and its position at the bottom of the ravine provides minimum impact on the habitat of the valley slopes. The disadvantage of the pathway location occurs during periods of high use when the disruptive effects of human noise and movement can be felt over a broad area that extends virtually to the upper edges of the valley wall (Figure 2). The design and operation of the trail should strive to minimize the disruptive influences along the pathway. This may be achieved through:

1. Keeping traffic moving through the trail. Stopping areas may be located where the ravine is the widest, thereby maximizing wildlife security and avoiding the creation of gaps in the corridor (Figure 3).

2. Revegetation of the narrowest parts of the ravine to visually enclose the bicycle traffic along the easement.

3. Creation of "white noise" in congested areas of the trail and in nodes to reduce the wildlife/people interactions. This can be accomplished through introduction of small waterfalls or rapids in the storm sewer channels.

4. Planting of heavy cover and food species along upper parts of the ravine to maintain a distance between wildlife and people.

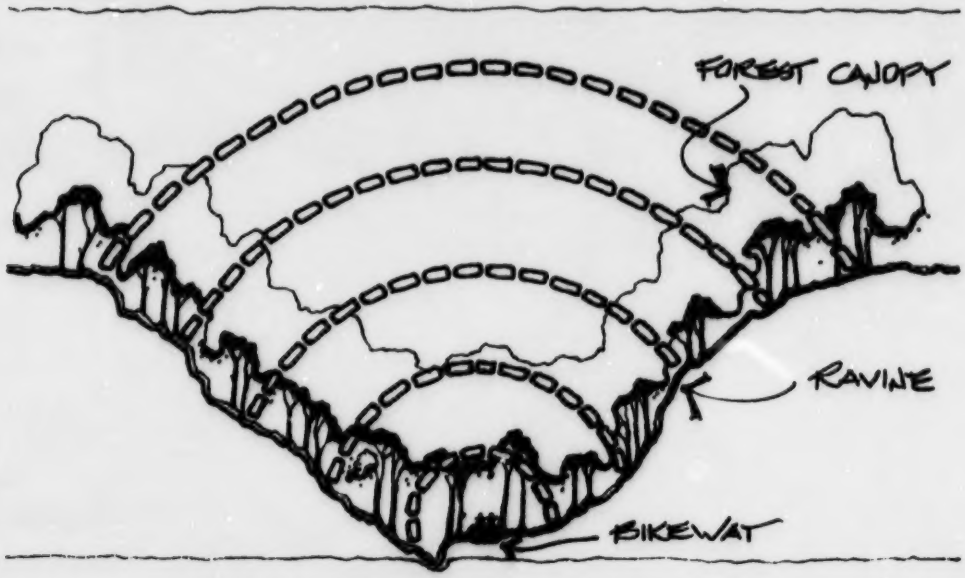


Figure 2. Typical cross-section of Moore Park Ravine showing the relationship between wildlife use and human activities.

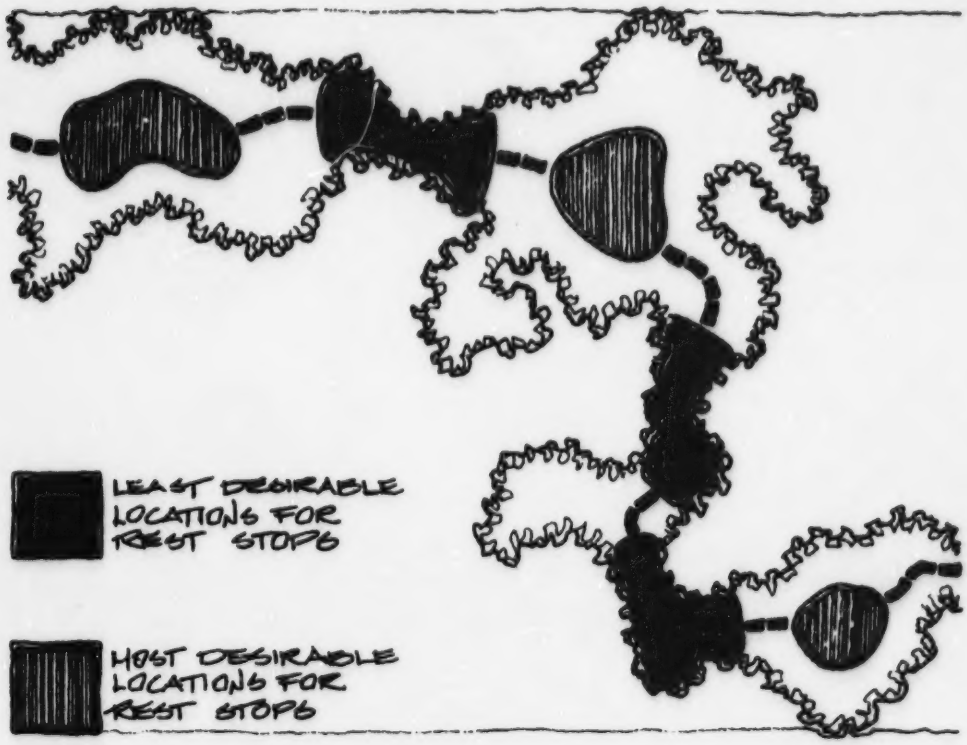


Figure 3. Schematic plan view of a habitat corridor (such as exists in Moore Park Ravine) showing desirable locations for rest areas.

4.4 SCENIC QUALITY

4.4.1 Allen Expressway to Bathurst Street

Shrubbery and small shade trees at the rear of flanking properties, and on the easement provide a green barrier on both sides of the strip. The sunken nature of the easement relative to the surrounding building lots further emphasizes its enclosed condition.

The easement contains a strongly linear configuration except at its easternmost end where it turns southward. No important views are recognized.

OPPORTUNITIES AND CONSTRAINTS

The easement is moderately vegetated along its margins. However, an opportunity exists for diversification of the strip by the planting of additional trees and shrubs; this would break up the existing linear views and define access points along the easement. It is recommended that views of the adjacent open spaces (children's play area and schoolyard of West Preparatory Public School; unnamed greenspace on Old Park Road and Ridge Drive) be maintained.

4.4.2 Bathurst Street to Eglinton Avenue

This segment of easement contains canyon-like spaces created by flanking apartment buildings near Bathurst Street and again near Eglinton Avenue. In between, there is an open green space that is bordered by Memorial Park to the north and turf grasses and tennis courts behind apartments to the south. Extensive greenery is confined to a strip along the easement at the rear of 650 and 660 Eglinton Avenue West, 665 and 675 Roselawn Road and 515 Chaplin Crescent.

Strong linear views within the easement are created by the adjacent apartment buildings. Lateral views are provided by the open spaces of Memorial Park. The existing path closely follows the old railway bed but its curved configuration creates varying views.

OPPORTUNITIES AND CONSTRAINTS

No serious constraints are identified. It is recommended that additional planting of shade trees and shrubs be considered on the easement adjacent to 10, 20 and 22 Shallmar Boulevard and, especially, 325 and 329 Chaplin Crescent to diversify the views and hide less aesthetically desirable adjacent land uses. It is also

suggested that vines and/or shrubs be used to cover parts of the retaining wall below 600 Eglinton Avenue West and the Eglinton Avenue bridge.

4.4.3 Eglinton Avenue to Avenue Road

The enclosed nature of most of the vegetation canopy provides a unique experience for pedestrians and cyclists. Throughout the length of the right-of-way the linear views are strongly channelled by the vegetation; laterial views to the outside are restricted to brief glimpses of backyards through heavy foliage.

OPPORTUNITIES AND CONSTRAINTS

No constraints are recognized. The entire segment is considered to be highly suitable as a cycling trail.

4.4.4 Avenue Road to Yonge Street

This segment provides an assemblage of diverse spacial qualities due mainly to the low use received by the easement and the consequent encroachment of trees and shrubs in surrounding areas. The segment from Avenue Road to the Oriole Parkway is heavily enclosed or canopied throughout its length; heavy shrubbery partially screens views of adjacent backyards. The Oriole Parkway-Lascelles Boulevard segment is more open and provides intermittent views of the spaces to the north-east. The segment from Lascelles Boulevard to Yonge Street is open and canyon-like due to a row of mature poplars along the north side and the tall apartment buildings to the south. A lightly screened view of the Davisville Subway station and adjacent yard is provided to the east end of the easement. The view from the bridge over the subway tracks and Yonge Street is also important in establishing a visual connection with Mount Pleasant Cemetery.

OPPORTUNITIES AND CONSTRAINTS

Widening of the path for use by bicycles will require the removal of several existing trees west of the Oriole Parkway and between the Oriole Parkway and Lascelles Boulevard. An attempt should be made to re-establish a strong sequence of opening and enclosing spaces, as presently characterizes the area. Additional planting along the concrete wall on the south side of the easement between Lascelles Boulevard and Yonge Street will reduce the barrier-like qualities of this feature.

4.4.5 Yonge Street to Mount Pleasant Road

The scenic qualities of the area are greatly influenced by two visual features:

A. The 2-2.5 m fence that forms the boundary between Mount Pleasant Cemetery and the Belt Line easement. This fence consists of vertical wood slats east of a line approximately even with 267 Merton Street; the wall is constructed of cement blocks west of this line.

B. The mature shade and ornamental trees located in adjacent Mount Pleasant Cemetery.

Along the easement, the views to the north are blocked by the buildings located along the south side of Merton Street; the views are open at 35 and 225 Merton Street where parking lots are located. The regrowth of vegetation on the strip from approximately 119 to 267 Merton Street provides for almost total enclosure within the site.

OPPORTUNITIES AND CONSTRAINTS

Given the opportunity to re-establish the Belt Line pathway, it would be desirable to vary the horizontal routing of the path within the easement to create an experience that contrasts with the more linear, directional qualities present through much of the easement west of Yonge Street. It will be desirable to diversify the easement near Yonge Street and Mount Pleasant Road by planting additional trees and shrubs. Additional landscaping will be required to beautify or camouflage the rear walls of the two lumber yards at 151 and 165 Merton Street, and the rear walls and properties of several adjacent properties (see map).

It will also be desirable to relandscape the Mount Pleasant underpass to reduce the starkness and foreboding atmosphere created by the narrow, concrete opening.

4.4.6 Mount Pleasant Road to Moore Avenue

The neglected westernmost 450 feet of the easement is overgrown with shrubs and grasses; some enclosure is provided by shade trees to the northeast at the rear of the two apartment buildings and by cemetery trees to the southwest. Breaks in the vegetation on the northwest side provide a reminder of the urban setting in which the Belt Line is located. To the southwest, the cemetery grounds provide a continuous wall of greenery that

effectively masks the presence of busy Mount Pleasant Road.

The remainder of the easement within Mount Pleasant Cemetery is open to the sky and enclosed on either side by large shade trees.

OPPORTUNITIES AND CONSTRAINTS

It is suggested that planting of the presently abandoned easement adjacent to Mount Pleasant Road should complement existing planting in Mount Pleasant cemetery. Views of the buildings along Merton Street add diversity to the Belt Line experience and should be retained.

The bicycle path will follow the existing cemetery circulation system within Mount Pleasant Cemetery; the spatial character of this area is deemed to be highly acceptable for bicycle traffic and no constraints are recognized.

4.4.7 Moore Park Ravine

Spatial qualities vary throughout the length of the ravine; the canopied upperhalf of the ravine changes to the partly-enclosed lower portions of the ravine, finally becoming open near its terminus at the Bayview Extension. Throughout most of the length of the ravine, the valley walls provide the greenery of the enclosure; the great height of the trees (up to 100 feet) greatly exaggerates the apparent depth of the ravine and serves to emphasize its isolation from the surrounding urban environment.

Perhaps the most outstanding visual attribute of the easement along Moore Park Ravine is the sequence of open and enclosed spaces that become progressively more defined as one proceeds from Moore Avenue to the Bayview Extension. This sequence proceeds as the vegetation of the ravine changes from oak-maple to maple-butternut and open vine-covered slopes to manicured parkland. Hence a gradual transition is made in both the composition and physiognomy of the vegetation, and in the human uses of the spaces. There will be a greater tendency to stop in the larger areas along the path; hence the greatest amount of active recreation will be encouraged at the base of the ravine in the open space near the sewage pumping station.

Three significant views are identified:

1. Don Valley Brickworks quarry. Partially screened views of the quarry are provided along a 200 m

length of the easement and two additional unobstructed views are provided at breaks in the vegetation.

2. View of the valley slope of Chorley Park.

3. View of the eastern side of the Don Valley from Pottery Road to Danforth Avenue. This view is from the lower easement near the Bayview Extension.

OPPORTUNITIES AND CONSTRAINTS

The existing spatial and special visual qualities of Moore Park Ravine and Belt Line easement are considered to be highly valuable assets of the proposed cycling trail. They provide a sense of isolation within a park-like setting and a well-defined transition between the fast-pace circulation functions of the Don Valley corridor and the tranquility of the residential and cemetery lands above the ravine.

The existing trail changes direction frequently thus providing a strong sense of mystery. Hence there is no need to change the present layout of the trail to create more interest.

The following specific recommendations should be considered:

1. Provision of better views of the Don Valley Brickworks quarry. Access to the quarry is controlled due to blasting and instability of the quarry walls; hence it is important to establish safe but unobstructed views into the quarry so persons will not be tempted to cross the fence into the adjacent private property for a better look.

   The sale of the Don Valley Brickworks to a development firm in 1984 may greatly alter the quarries' future qualities.

2. Maintenance of the open spaces at the base of the trail near the sewage pumping station, and between Chorley Park and the Don Valley Brickworks. There appears to be a trend towards filling in these spaces with trees. Some open spaces should be maintained for passive and unorganized active sports (e.g. sunbathing, frizbee playing).

5. CULTURAL AND LEGAL INVENTORY

5.1 BELT LINE RAILWAY FEATURES

Few features of the former Belt Line Railway remain as a reminder of the original condition of the easement. A few railway ties are present on the abandoned easement immediately east of Mount Pleasant Road and at the access point at Larriat Parkette. Four stations existed on the segment of the Belt Line between Allen Expressway and the Don Valley. Their locations are indicated on the 1894 map of Toronto (Figure 4). None of these stations now remain. The City of Toronto Archives has a photograph of only one of these, Moore Park Station (cover photograph).

OPPORTUNITIES AND CONSTRAINTS

While little remains of the former Belt Line, potential exists to use the railway theme to tie the bikeway together. An interpretive plaque with old photographs of the railway (including stations) would be an effective information conveyor to illustrate the changes that have occurred since the railway was abandoned.

5.2 EXISTING CIRCULATION AND ACCESS

5.2.1 Allen Expressway to Bathurst

Access to the westernmost end of the easement is blocked by a 2.5 m high chain link fence. Otherwise, it would be possible to connect the Belt Line walkway with the walkway running north-south along the east side of the expressway only a few metres away.

Sidewalks intersect the Belt Line on either side of Old Park Road. An existing cross-walk for Old Park Road occurs about 10 m south of an existing crosswalk; hence a slight detour is necessary to legally cross Old Park Road. No direct access is available to the children's play area or school yard to the south-west of the Old Park Road Crossing.

It should be noted that the curbs at the crossing of Old Park Road are only about 2-3 inches high and hence do not discourage deter persons from riding their bicycles over the curb and across the roadway.

OPPORTUNITIES AND CONSTRAINTS

Removal of the chain link fence at the west end of the easement and connecting with the existing sidewalk

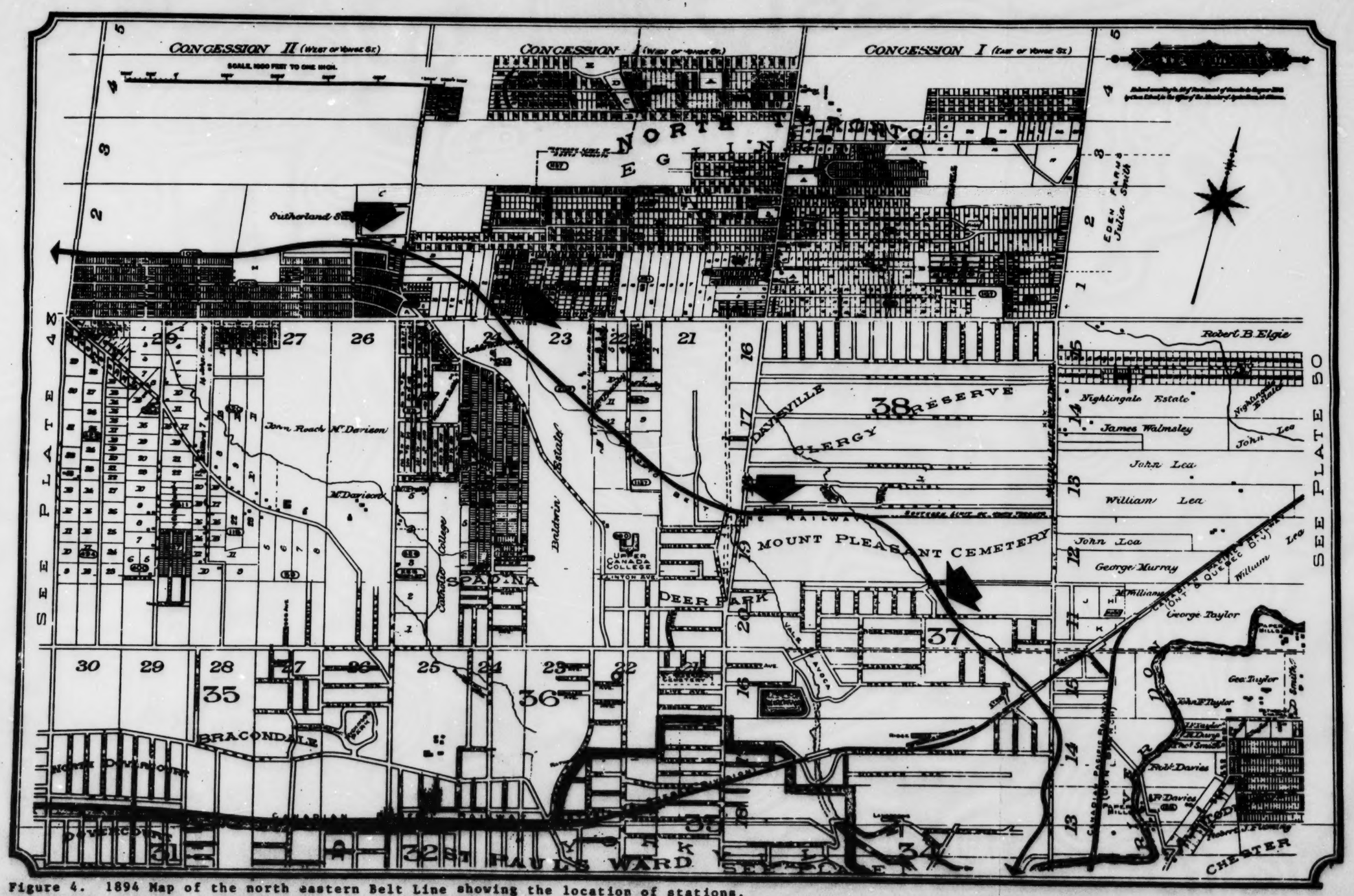


Figure 4. 1894 Map of the north eastern Belt Line showing the location of stations.

running along the Allen Expressway would link the route to existing sidewalks and streets to the west.

A safety problem may occur at the crossing of Old Park Road. Four features make this a particularly dangerous corner:

1. Low curbs encourage cyclists to go directly across the roadway instead of detouring 10 m to the existing crosswalk.

2. The row of spruce trees on the north side of the easement and west of Old Park Road block cyclists' views of traffic originating from the north-west.

3. The existing crosswalk is inconveniently located relative to the Belt Line.

4. The proximity of West Preparatory Public School suggests that this crossing may be heavily used during certain times of the day and year.

It is suggested that careful attention be given to this crossing. It may be necessary to deflect the Belt Line pathway a few metres to the north to take advantage of the existing crosswalk.

The crossing of Bathurst Street presents a more severe problem because of the volume of vehicular traffic and the proximity to the controlled intersection to the north. Rerouting to the intersection provides an inconvenient detour. There appear to be two other alternatives:

1. A crosswalk, or

2. An overhead walkway.

A crosswalk presents the same problem as a set of walk lights -- too much congestion near a set of traffic lights. An overhead pass would be extremely expensive, and would likely be as inconvenient for cyclists (who would have to push their bicycles up) as a detour to the controlled intersection to the north.

5.2.2 Bathurst Street to Eglinton Avenue

This segment is currently being used for walking and cycling throughout its length. Linear access is provided off the sidewalk adjacent to Bathurst Street to the west, and under the Eglinton Avenue underpass to the east.

Public access from adjacent areas is available at three locations:

1. A pedestrian path connecting Chaplin Crescent to Shalmar Boulevard between 10 and 21 Shalmar Boulevard.

2. A pedestrian path from west of the Memorial Arena to the rear of 21 Shalmar Boulevard.

3. An alley extending from 650 and 660 Eglinton Avenue west to Chaplin Crescent.

OPPORTUNITIES AND CONSTRAINTS

Given the short length of easment between Bathurst Street and Eglinton Avenue, the three public access points are considered adequate. The open green space separating Chaplin Crescent and the easement provides additional opportunities to move between the two circulation corridors.

Regrading of the above pathways will be required so that bicycle traffic would be allowed to flow uninterrupted along the easement.

5.2.3 Eglinton Avenue to Avenue Road

This entire segment is in use for cycling and walking. Access along the easement is provided from the west beneath the Eglinton Avenue underpass and to the east, onto the sidewalk paralleling Avenue Road.

Public access to the easement is provided at three points:

1. Via a walkway through Russell Hill Parkette from Chaplin Crescent, and a city lot immediately opposite the parkette from Forest Hill Road (this latter access is by a series of steps);

2. Via Larriat Parkette from both Chaplin Crescent and Forest Hill Road;

3. From Forest Hill Park (two access points).

OPPORTUNITIES AND CONSTRAINTS

Present access is considered adequate. The proximity of existing access points to Eglinton Avenue, the great grade separation between easement and street, and the

lack of public lands make an additional access point at Eglinton Avenue unfeasible.

The crossing of Avenue Road presents a more serious problem. At present, the nearest legal crossing is at the Avenue Road/Chaplin Crescent intersection about 180 feet to the north. The high volume of traffic on Avenue Road and the nearness to the Avenue Road/Chaplin Crescent intersection make a direct crossing of Avenue Road very awkward. The provision of a pedestrian overpass (since bicycles would have to be guided through) would seem to be as inconvenient to cyclists as would detouring to the nearest intersection. It may be desirable to place stop signs on the bikeway, and leave crossing to the discretion of the cyclists who use it.

5.2.4 Avenue Road to Yonge Street

The Belt Line easement is used for walking and probably only occasionally for cycling between Avenue Road and the Yonge Street subway tracks. Three crossings present problems to bikeway traffic.

1. Oriole Parkway. Legal crossing is possible at the controlled intersection of Chaplin Crescent and the Oriole Parkway about 40 m north of the easement. Traffic turning off Frobisher Avenue onto the Oriole Parkway is controlled by a stop sign. Direct crossing of Avenue Road is difficult and dangerous due to the high volume of traffic present.

2. Lascelles Boulevard. Vehicular traffic passes directly from Lascelles Boulevard onto Frobisher Avenue; no stop sign is present. Traffic volume is low, but nonetheless presents a safety problem for cyclists wishing to cross Lascelles Boulevard. The problem is compounded by the poor visibility offered by a thick screen of vegetation along the easement near Lascelles Boulevard.

3. Bridge over the Yonge subway tracks and Yonge Street. This section is blocked by three fences, presumably because of the poor condition of the overpass. Ominous signs on fences on either side of the bridge suggest that "Trespassers may be electrocuted".

OPPORTUNITIES AND CONSTRAINTS

Some widening of the pathway, and vegetation removal will be required at the eastern end of the Avenue Road-Oriole Parkway segment and the Oriole Parkway-Lascelles

Boulevard segment; removal of vegetation will be required at the eastern end of the latter segment for safety reasons.

Oriole Parkway remains a major obstacle of similar magnitude to Avenue Road. Again a detour of 40 m is necessary if present legal crossing is to be accomplished. A pedestrian (and bicycle-assisted) overpass would be equally inconvenient. The present situation may be no less convenient than any other alternative.

The Lascelles Boulevard crossing is more easily handled with a crosswalk due to the low volume of vehicular traffic sustained.

The overpass segment above the Yonge subway tracks will require major structural additions since all that now remains are a series of open girders. The segment over Yonge Street is still intact and should require minor modifications. Access to Yonge Street is discussed under section 5.2.5

5.2.5 Yonge Street to Mount Pleasant Road

At present there is no public access to the Belt Line easement between Yonge Street and Mount Pleasant Road. The overpass above Yonge Street and the subway tracks is blocked by three chain-link fences. The underpass below Mount Pleasant Road is fenced along its east end and is presently being used by Dominion Coal and Wood Co. as a storage area.

OPPORTUNITIES AND CONSTRAINTS

Essential for the continuity of the Belt Line trail is free access:

1. over Yonge Street and adjacent subway tracks, and

2. through the Mount Pleasant Drive underpass.

Access from adjacent areas should be established near the Yonge Street overpass. The difference in grade between street level and bridge level at Yonge Street is too great for construction of an effective bicycle ramp (although stairs may be provided for pedestrian traffic). The lane east of 25 Merton Street (the site of the existing parking lot entrance) would provide an appropriate bicycle access point to the Belt Line. An additional access point near Mount Pleasant is discussed

in the section dealing with the Belt Line east of Mount Pleasant Road.

5.2.6 Mount Pleasant Road to Moore Avenue

No access to, or circulation within, the Belt Line easement has been specifically accommodated. Two barriers to movement exist along the eastment:

1. a chain link fence across the Mount Pleasant Avenue underpass;

2. a chain link fence across the southeast end of the unused easement adjacent to the cemetery.

OPPORTUNITIES AND CONSTRAINTS

Opportunities for pedestrian and bicycle access to the easement is limited to the north by the paucity of publicly-owned land. The "Final Recommendations" for "Merton Street Area" suggests connecting links be stablished on the east side of 25 Merton Street (site of present parking lot entrance) and east of 117 Merton Street.

Access along the easement would be available off the Yonge Street overpass (as previously described) and through the Mount Pleasant Road underpass. The opportunity for pedestrian access from Yonge Street could be provided by a stairway from the eastern Yonge Street sidewalk to the overpass level (a vertical rise of approximately 7 m). The slope on the north side of the bridge is smaller than the south side and hence would appear to be a more appropriate location for stairs.

A major access point for both bicycle and pedestrians could be provided into the northwest corner of Mount Pleasant Cemetery from the Yonge Street overpass. The grade separation on either side of the existing cement block fence is approximately 0.7 m and the installation of a pathway to the nearest asphalt cemetery roadway could be accomplished with removal of only one major shrub along the south side of the cemetery wall. It is expected that all physical problems associated with joining into the existing cemetery roadways can be overcome with careful design of the link.

In order to avoid expensive installation of redundant bikeway circulation within the cemetery, it will be advisable to provide links into the cemetery's existing internal vehicular/pedestrian roadways. The suggested

access points and routing of bicycle paths within the cemetery are indicated in Map 5.

Access to the Belt Line easement from the surrounding area could occur at the following points:

1. As suggested in the "Final Recommendations" for "Merton Street Area", access from the southeast corner of the Merton Street/Mount Pleasant junction may be accomplished along the west side of 345 Merton Street where an informal walking path already exists. Formal public use of this site and future upgrading will require negotiations with the owners of the land.

2. Via the three main entrances that connect into the internal circulation system of Mount Pleasant Cemetery.

Under the original land transfer between C.N.R. and the trustees of Mount Pleasant Cemetery an agreement was made that bicycling would be allowed in the cemetery grounds during normal operating hours (8.00 a.m. to 8.00 p.m. while on Daylight Saving Time; 8.00 a.m. to 5.30 p.m. while on Eastern Standard Time). There is thus a need for an access/exit point near the Mount Pleasant underpass to allow bicycle and pedestrian traffic to exit from the bikeway during the hours that the cemetery is closed to the public.

5.2.7 Moore Park Ravine

Moore Park Ravine is presently being used for walking and cycling throughout its length from Moore Avenue to the Bayview Extension. Public access to the route is available at three locations:

1. From either side of the Heath Street Foot Bridge. Access consists of a steep dirt path (about 15-20% slope) that apparently becomes muddy during wet weather.

2. Through Chorley Park. The land slide in 1973 removed part of the asphalt pathway that extended from the upper beach to the ravine trail. This path was not rebuilt; only a narrow dirt path joins the existing asphalt path at mid-slope to the valley bottom. The steepness (more than 15%) and state of disrepair make it inappropriate for use as a bicycle access route.

3. From Park Drive Ravine. A packed dirt and gravel trail links David Balfour Park and Park Drive Ravine directly to the Belt Line easement via the Bathurst Extension traffic overpass at the foot of Park Drive Ravine. At present this link appears to provide the route for most of the bicycle and pedestrian traffic originating from, or going towards, Moore Park Ravine.

The entrance at Moore Avenue consists of a steep (more than 15% slope) asphalt ramp from the sidewalk to the stream level. There is no cross-walk provided to link it to the gate of Mount Pleasant Cemetery. Moore Avenue is an important connector from Bayview to the upper downtown district, and thus is heavily used by rush hour traffic.

At its easternmost terminus, the connector to the existing Don Valley bicycle trail is bisected by the Bayview Street Extension. The Bayview Extension is very heavily utilized by vehicular traffic; no crosswalk is provided for pedestrians or bicycles.

OPPORTUNITIES AND CONSTRAINTS

The steepness of some slopes in Moore Park Ravine present special access problems for bicycle traffic. Nonetheless, access should be provided at several locations along the length of the ravine. The installation of ramps should be considered where slopes are too steep for bicycle riding; these will enable cyclists to walk their bicycles up and down. "Speed ramps" that endanger pedestrians and cyclists should be avoided. One such "speed ramp" exists at the top of Moore Park Ravine where a slope in excess of 15% has been surfaced with asphalt.

The following locations require upgrading if they are to be effectively and safely used by bicycle traffic.

1. Upper Moore Park Ravine below Moore Avenue. The steepness of this segment makes it difficult to cycle up and dangerous to cycle down. Regrading and/or additional surface treatment (such as speed bumps or stairs with wheel channels) and/or signs need be considered. A hairpin turn with an exit further east on Moore Avenue and nearer the gate of Mount Pleasant Cemetery may be an alternative solution.

2. Connector to existing Don Valley Bikeway across the Bayview Extension. This is presently a dangerous crossing due to the width of the highway (4 lanes)

and the large volume of vehicular traffic. It seems likely that any type of controlled crossing would be too disruptive to vehicular traffic, especially given its proximity to the ramps from the Don Valley Parkway. A cycle and pedestrian overpass or underpass should be considered.

3. Heath Street walkway exits. Exits should be provided on at least one side of the valley from the Moore Park pathway. The existing ramp angles are too steep to easily ride up, however bicycles can be pushed up. Consideration should be given to resurfacing and widening one or both of the existing pathways and possibly adding speed bumps to control "strafers".

4. Chorley Park access. The asphalt pathway leading from the upper section of the park to the existing Moore Park path should be rebuilt. The slope will be too steep for cycling but will provide better access for cyclists wishing to walk their bicycles onto the Belt Line easement.

5.3 CRITICAL ADJACENT LAND USES

Table 2 summarizes the adjacent land uses that are deemed the most significant in terms of generating local bicycle traffic or providing destination points. It seems likely that the single most important use will be recreational cycling. The residential character of the majority of the route provides an indication of the broad reservoir from which these users originate. It is thus important that connectors be strategically located to provide easy access to the surrounding area.

Table 2 Originators and/or Destination Points of potential Bicycle Traffic adjacent ot the Belt Line Easement

Name of Feature	Characteristic(s)	Potential Importance
5.3.1 ALLEN EXPRESSWAY TO BATHURST STREET		
Unnamed park at junction of Old Park Road and Ridge Drive	open space/ recreational	low
West Preparatory Public School	educational/ recreational	high
5.3.2 BATHURST STREET TO EGLINTON AVENUE WEST		
Memorial Park	recreational	high
Roselawn Cemetery	passive recreation	low
Eglinton Avenue West	commercial/business	moderate
5.3.3 EGLINTON AVENUE TO AVENUE ROAD		
Eglinton Avenue West	business/commercial	moderate
Russell Hill Parkette	open space passive active recreation	low
Larriat Parkette	open space passive/active recreation	low
Avenue Road	business/commercial	
5.3.4 AVENUE ROAD TO YONGE STREET		
Davisville Park	open space passive/active recreation	moderate
Yonge Street/ Davisville	business/commercial	med.
Yonge Street/ St. Clair	business/commercial	high

Name of Feature	Characteristic(s)	Potential Importance
5.3.5 YONGE STREET TO MOUNT PLEASANT ROAD		
Yonge Street/ Davisville	business/commercial	high
Mount Pleasant Cemetery	open space/passive recreation	high
Merton Street	business/commercial	low
Mount Pleasant Road	business/commercial	moderate
5.3.6 MOUNT PLEASANT ROAD TO MOORE AVENUE		
Mount Pleasant Road	business/commercial	moderate
Mount Pleasant Cemetery	open space/passive	high
Bayview Avenue	business/commercial	low
5.3.7 MOORE AVENUE TO BAYVIEW EXTENSION		
Moorevale Park	open space, active/ passive recreation	moderate
Bayview Avenue	business/commercial	low
Chorley Park	open space active/passive recreation	low
Moore Park Ravine	open space natural area, active/passive recreation	moderate
Park Drive Ravine	open space, natural area	moderate

5.4 LAND OWNERSHIP AND LEASES

This section deals with those areas where development issues have been addressed under the Section 5.2 - "Existing Circulation and Access", or where encroachment from adjacent properties has threatened designation of easement. The following discussion relates specifically to land acquisition as required for access to the easement, or for the continuity of movement within the easement.

On March 5, 1971, City Council adopted a resolution that suggested that a "sub-committee be authorized to negotiate for the acquisition of the Belt Line lands as a single parcel of land for the purposes of public use and development; and that this parcel of land be developed to provide a linear park for pedestrian use." C.N.R. has agreed to a transfer of city-owned lands along the lakeshore for the Belt Line easement. It is anticipated that negotiations will be finalized in the near future.

5.4.1 Allan Expressway to Bathurst Street

5.4.2 Bathurst Street to Eglinton Avenue

5.4.3 Eglinton Avenue to Avenue Road

5.4.4 Avenue Road to Yonge Street

These segments of the easement are currently being managed as public open spaces under ownership of C.N.R. In some areas it appears that encroachment is occurring as homeowners re-fence their backyards and include a portion of the Belt Line easement.

5.4.5 Yonge Street to Mount Pleasant Road

Land ownership in the vicinity of the beltline right-of-way is shown in Figure 5. Canadian National Railways owns three parcels of land south of Merton Street totalling 3.2 acres. The Belt Line is also still under the ownership of C.N.R.: the easement is 60 feet in width except at the rear of Dominion Coal and Wood Co. where it is 55 feet wide; the total area occupied by the easement is 4.1 acres. The single lot owned by Metropolitan Toronto has been developed as a high-rise building for senior citizens. The remainder of the land is privately-owned.

The westernmost C.N.R. parcel of land, together with part of the Belt Line easement, have been leased for paid parking; a portion of the easternmost C.N.R. holding is

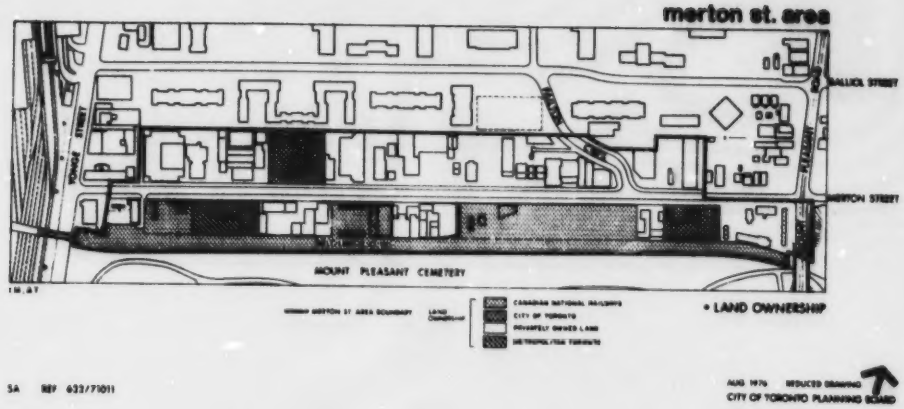


Figure 5. Land ownership along the Belt Line easement between Yonge Street and Mount Pleasant Road. (From City of Toronto Planning Board 1976).

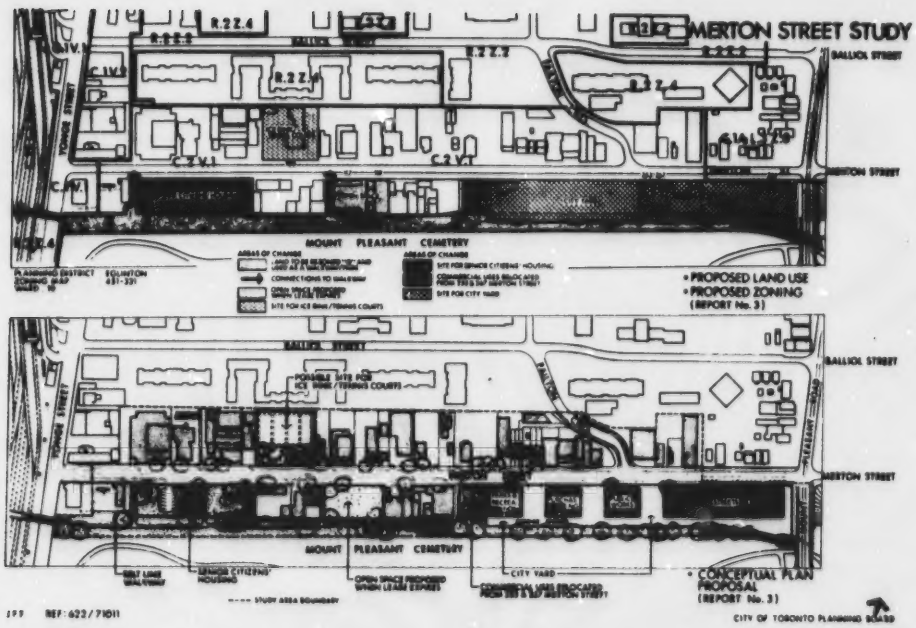


Figure 6. 1976 conceptual plan for Merton Street area. (From City of Toronto Planning Board 1976).

currently being used for parking. The latter area is 3-4 feet above the grade of the railway easement and extensive filling, including concrete blocks and garabage, has occurred on the Belt Line easement.

Dominion Coal and Wood Co. is currently using all Belt Line lands adjacent to their property under a lease from C.N.R. When the Belt Line Railway service was terminated in 1969, Dominion Coal Company entered into an agreement with the C.N.R. to provide this easement in compensation for the loss of rail service. Since the approval of the Metro Centre Land Exchange Agreement, it has become a matter of bitter debate whether the agreement between Dominion Coal and Wood Co. and C.N.R. should be honoured after the Belt Line Lands have been transferred to the City of Toronto. Lawyers for Dominion Coal and Wood Co. have verbally offered to provide a 10-foot wide corridor for a bikeway at the back of their property. The "Final Recommendations" for "Merton Street Area 1966" recommends that the right-of-way NOT be conveyed to Dominion Coal and Wood Co. This problem has not yet been resolved.

5.4.6 Mount Pleasant Road to Moore Avenue

An agreement was negotiated between the City and the Trustees of the Toronto General Burying Grounds (Mount Pleasant Cemetery) in 1966, in which the City conveyed the old section of the Belt Line Railway passing through the Cemetery in return for public access to the Cemetery during daylight hours. The draft agreement was adopted by City Council on January 19, 1966. The part of the covenant, as entered upon the title of the old Belt Line right-of-way lands concerning the walkway, is outlined below:

"...the specific route to be used by the public to be mutually agreed on in writing by the Grantor and Grantee, or their designated representatives, and to be a maximum of ten feet in width over the said old Belt Line Railway right-of-way lands, and such access shall commence when such agreement has been reached....".

The "Final Recommendations" for Merton Street Area stressed the importance of establishing a formal agreement with the Trustees so that the public is able to use the walkway. An opportunity should be provided to join the walkway with the Don Valley via the Moore Park Ravine and to provide access to the walkway from Mount Pleasant Road.

In respect to this latter objective, the zoning amendments included the following:

"It is recommended that the Commissioner of Public Works and the Commissioner of Parks and Recreation be requested to report as to the best way to provide stairs from Mount Pleasant Bridge for the convenience of the public."

C.N.R. still retains ownership of the upper 450 feet of fenced easement adjacent to Mount Pleasant Road. Access to the easement from the southeast corner of the Merton Street-Mount Pleasant Road intersection will require negotiations with the owners of 345 Merton Street. This lot is currently occupied by an apartment building.

In 1983 a walking path with bark-chip surfacing was established between the cemetery asphalt roadway and the gate opposite the upper end of Moore Park Ravine; the gate has since been open during regular cemetery hours. A similar connection has been established at the upper end of Vale of Avoca ravine.

5.4.7 Moore Park Ravine

The Belt Line easement within the present boundaries of Moore Park Ravine is now publicly-owned and is administered under the jurisdiction of the Metropolitan Toronto Conservation Authority.

The new ravine control by-law has been developed "to regulate and prohibit the destruction of trees or other natural vegetation and to prohibit the excavating or other altering of contours within ravines" (see Appendix 3 for complete summary).

5.5 ZONING AND FUTURE PLANNING CONSIDERATIONS

Relevant municipal zoning ordinances for areas on and adjacent to the Belt Line easement are presented, where appropriate, on the accompanying maps.

Future planning issues and specific developments adjacent to the Belt Line are also summarized here. Except for the easement south of Merton Street between Yonge Street and Mount Pleasant Road, the zoning "G" has assured its integrity as an open green space. However, since developments on adjacent lands may have marked effects on certain aspects of the corridor, specifically access, future planning issues are discussed briefly here.

5.5.1 Allen Expressway to Bathurst Street

The easement passes through a low density residential neighbourhood. The Belt Line easement is zoned "G". No future planning in adjacent areas are known to potentially affect use of the Belt Line easement as a bicycle path.

5.5.2 Bathurst Street to Eglinton Avenue

The Belt Line passes through a high density neighbourhood with intermittent green space. The easement is zoned "G". No major future developments are known to be planned for adjacent areas.

5.5.3 Eglinton to Avenue Road

The easement passes through what is almost completely a low density residential district known as "Forest Hill". The entire right-of-way together with adjoining Russell Hill Parkette, Larriat Parkette and Forest Hill Road Park are zoned "G".

When the concept of a linear park and walkway was first put to the residents of Forest Hill in 1970-71, it proved to be a very controversial issue. The home owners abutting the Belt Line were concerned that the linear park would infringe on their privacy and provide a vehicle for increased vandalism in their area. Several meetings were held with the residents indicating that the people from the larger area generally supported the proposal while the abutting and nearby home owners opposed it. In spite of this opposition, neither the

abutting homeowners nor C.N. objected when the OMB approved the rezoning into a "G" category.

5.5.4 Avenue Road to Yonge Street

This sector contains a mixture of density classes. Lands adjacent to the Belt Line easement between Avenue Road and Oriole Parkway and on the south side of the sector between Oriole Parkway and Lascelles Boulevard are occupied by low to medium density residences. Lands to the south of the easement between Lascelles Boulevard and the subway tracks are zoned for high density residential use. Frobisher Avenue separates the easement from the open "G" space to the northeast.

Future planning developments may greatly alter the use of the space to the north of the easement between Lascelles Boulevard and the subway tracks. The area is currently being used as a T.T.C. subway yarding area and Davisville station stop. A proposed Davisville Centre Development consisting of offices, apartments and retail is planned for the area above the yarding station. The plan was approved by OMB in 1981, but owners of the air rights have taken the project no further.

The present plans respect the integrity of the Belt Line corridor; the only alteration to the existing space would be an elevated pedestrian ramp connecting the complex with the high rise apartment buildings to the south.

In spring 1984 C.N. applied for rezoning of the Belt Line corridor adjacent to Frobisher Avenue. C.N. is interested in turning over all Belt Line lands west of Yonge Street to the city in exchange for rights to develop the Frobisher Avenue strip.

5.5.5 Yonge Street to Mount Pleasant Road

A detailed analysis of land-use zoning within this area is contained in "Final Recommendations Merton Street Area. City of Toronto Planning Board, 1976". With the exception of the small office building at the corner of Merton and Yonge Streets (which is zoned C.a.V.1), the entire strip between the Belt Line and Merton Streets is zoned "C.2 V.1"; the official plan for Merton Street suggests a "C.1 L.3" zoning. The Belt Line easement is presently zoned "C.2 V.2" with the recommendation that it be changed to "G" zoning.

The conceptual plan for the Merton Street area is shown in Figure 6. The Senior Citizens Housing Site has already been constructed. Under the Merton Street Plan, a reconstructed walkway would be provided along the Belt Line easement from Yonge Street to Mount Pleasant Road with access from Merton Street provided at two locations west of Mount Pleasant Road and at one location immediately east of it. Construction of the proposed District Works Yard with ice-rink and tennis courts has not been initiated; its construction would not affect the circulation of bicycles and pedestrians along the Belt Line easement.

5.5.6 Mount Pleasant Road to Moore Avenue

At present all areas within the cemetery boundary are zoned "G", including the Belt Line easement that was transferred to the Toronto General Burying Grounds in 1966. All Belt Line Lands east of Mount Pleasant Road and north of Moore Drive were transferred except for a segment approximately 450 feet long to the rear of two apartment buildings (345 and 375 Merton Street) adjacent to Mount Pleasant Road. This land has remained part of C.N.R. property and has remained virtually unused and unmaintained since the rail line was removed. The "Final Recommendations" for "Merton Street Area" suggest access from Mount Pleasant Road via a pathway from the southeast corner of the junction of Merton Street and Mount Pleasant Road. This property is privately-owned. It provides a gentle open incline from street level to the easement and already receives some use as a walking path down to the parking lots at the rear of 345 and 375 Merton Street.

5.5.7 Moore Park Ravine

The entire easement within Moore Park Ravine falls under the jurisdiction of the Metropolitan Toronto and Region Conservation Authority. The majority of the land included in Moore Park Ravine is privately-owned and hence under the influence of a wide variety of personal interests. The City of Toronto's Ravine Control By-law has been introduced "to regulate and prohibit the destruction of trees or other natural vegetation and to prohibit the excavating or other altering of contours within ravines".

6. CONNECTING LINKS

6.1 ALLEN EXPRESSWAY TO HUMBER RIVER

Nearly all of this segment passes through the Borough of North York; attempts to establish the entire bikeway routing as described here will involve negotiations with several departments in their municipal government. Potentially only about 40% of the distance along this route can be traversed along the Belt Line easement; the remainder is through parks and along streets.

The emphasis in the accompanying plan (Figure 7) has been on off-street routing. The following segments are discussed below.

Segement A. Allen Expressway to Marlee Avenue

The railway easement along this portion has been leased to private land owners. The bicycle path would follow residential streets until it links with the existing railway west of Marlee Avenue.

Segment B. Marlee Avenue to Carnavan Street

This segment follows the existing railway, which is still used intermittently by C.N.R. It is grade separated at street crossings except for two streets and hence forms an ideal roadbed for bicycle touring. The route is almost devoid of vegetation because of its location in a highly industrialized neighbourhood; the visual character could be greatly enhanced with tree and shrub planting.

Segments C and D. Beltline Railway to Keele Avenue

These segments offer two street routes leading west from the railway easement. This segment is the preferred routing, but the major north-south C.N.R. trunk line is a major obstacle that would require construction of a bicycle underpass or ramped overpass. Segment C offers an all-street route alternative. Streets in these areas are heavily utilized by transport traffic and are rather undesirable as discretionary bicycle pathways; it would be advisable to avoid street routing wherever possible.

Segment E. Keele Avenue to the North York Municipal Centre

This segment offers street routing along quiet streets although the uncontrolled crossings at Keele Avenue and Trethewey Drive should be assessed for safety.

EXISTING HUMBER VALLEY BIKEWAY

HUMBER RIVER

JANE ST.

JESTON ROAD

CORONATION PARK

EGLINTON AVE. WEST

KEELE ST.

KEELESDALE PARK

C

D

E

F

G

J

HUMBER

ROLE PARK

ALLIANCE AVE.

HUMBER BLVD.

YORK STADIUM

CAYUGA PARK

EDINBOROUGH PARK

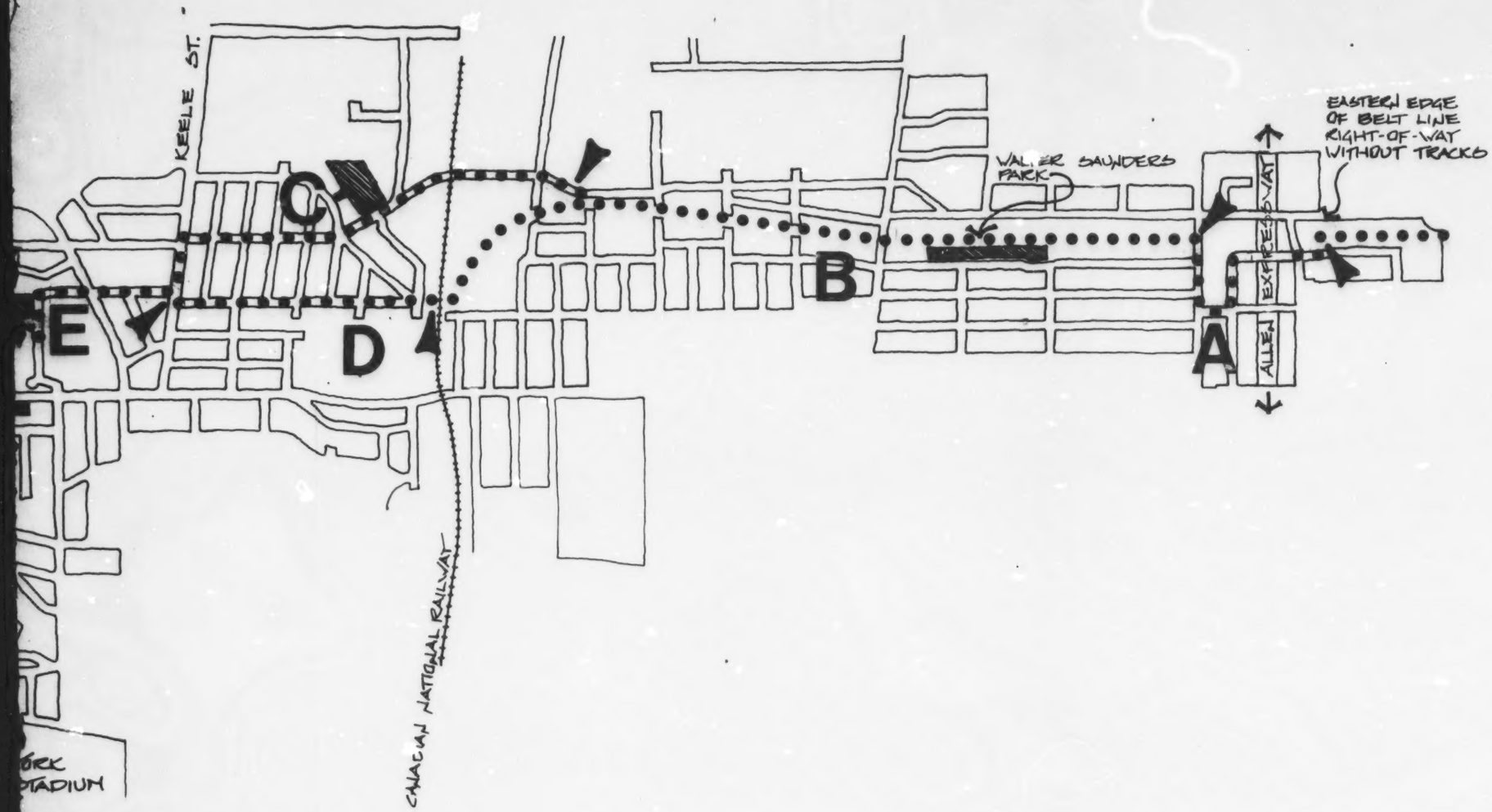
SCARLET RD.

BLACK CREEK SITE (WEST)

H

BLACK CREEK SITE (EAST)

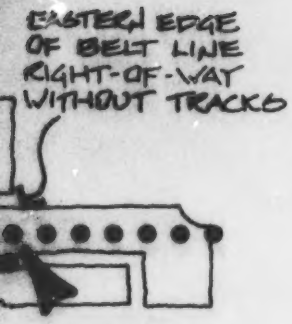
CANADIAN NATIONAL RAILWAY



CITY OF TORONTO
PLANNING AND DEVELOPMENT DEPARTMENT
Stephen G. McLaughlin, Commissioner
URBAN DESIGN GROUP

FIGURE NAME

SUGGESTED ROUTE OF THE BICYCLE PATH FROM THE ALLEN EXPRESSWAY TO THE HUMBER RIVER



CITY OF TORONTO
PLANNING AND DEVELOPMENT DEPARTMENT
Stephen G. McLaughlin, Commissioner
URBAN DESIGN GROUP

ARCHITECT
KEN GREENBERG

LANDSCAPE ARCHITECT
WAYNE RENAUD

DRAWN BY
W.R.

DATE
SEPT. 1984

FIGURE NAME

SUGGESTED ROUTE OF THE BICYCLE PATH FROM THE ALLEN EXPRESSWAY TO THE HUMBER RIVER

FILE NO.
787

FIG. NO.
7

Segment F. North York Municipal Centre to Weston Road

An asphalt path would be required along Black Creek through existing open green space. A narrow pedestrian underpass is already in existence beneath Eglinton Avenue along Black Creek.

Segment G. Weston Road to Hilldale Road

Discretionary street route along Humber Boulevard.

Segement H. Hilldale Road to Scarlett Road

Some existing vehicular roads can be utilized between Jane Street and Scarlett Road, but some additional bikeways would have to be constructed.

Segment I. Cliff Street to Jane Street

Discretionary street route.

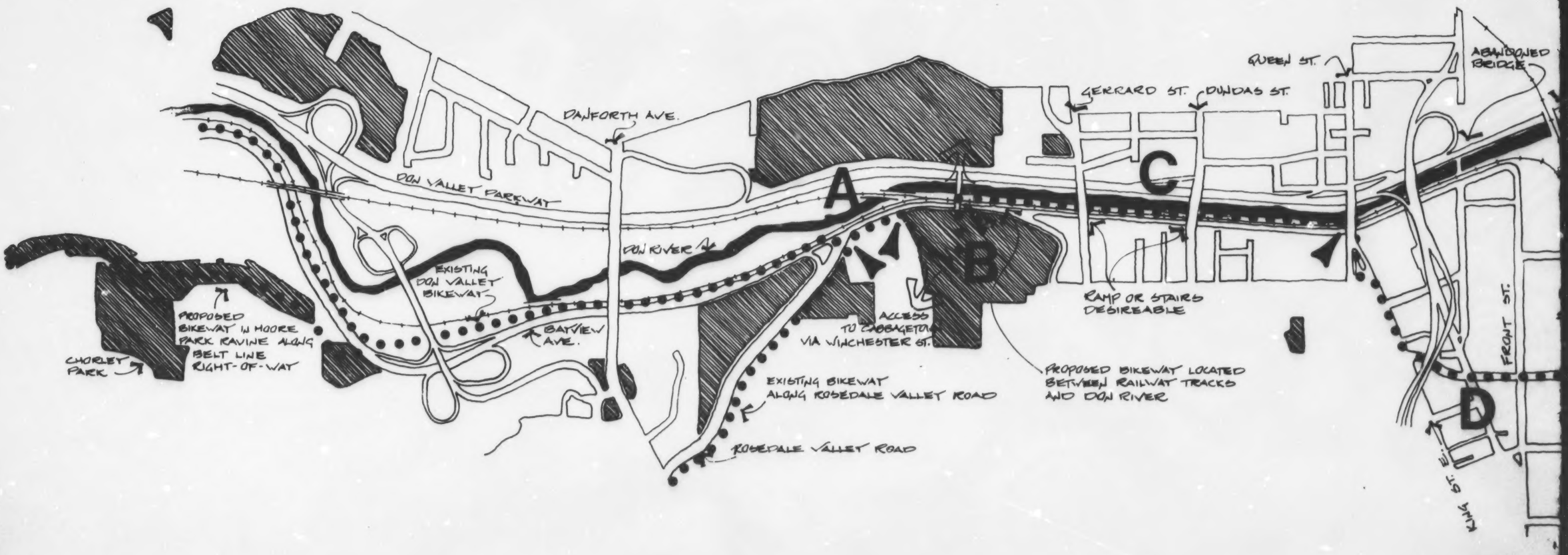
Segment J. Scarlett Road from Black Creek to the Humber River Bridge

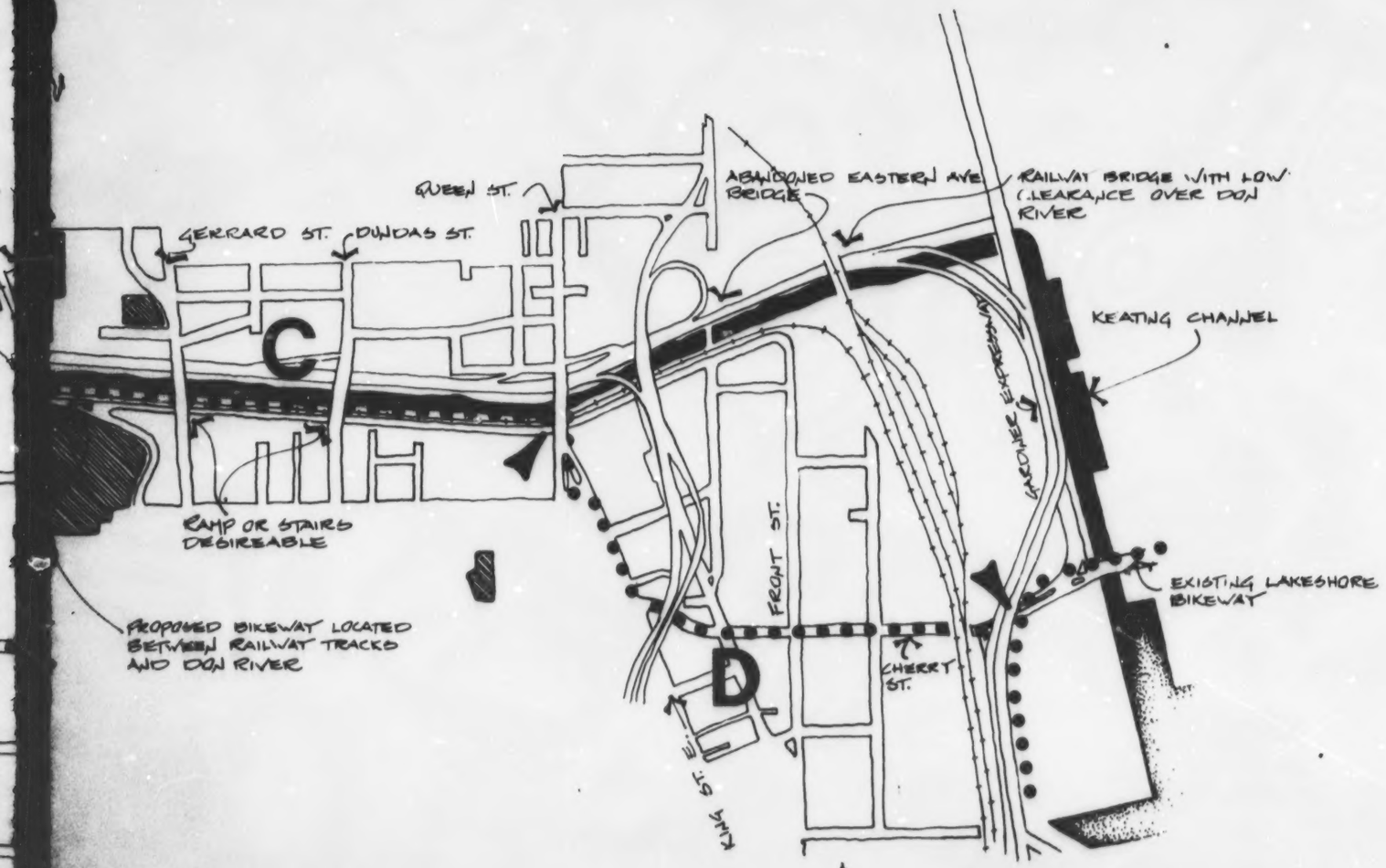
Ideally it would have been desirable to make the link to the Humber River trail via Lambton Golf and Country Club. This would require an agreement with the club, and construction of a bridge over the Humber River. The alternative suggested here is a discretionary street trail along Scarlett Road from Black Creek to the west end of the Humber River bridge.

6.2 MOORE PARK RAVINE TO CHERRY STREET

The eastern portion of the Belt Line railway was located along the western bank of the Don River between Moore Ravine and the lakeshore. This segment is still being utilized by the C.N.R. However, an existing bikeway is located near the former Belt Line easement from the southeast end of Moore Park Ravine to the junction of Rosedale Valley Road and the Bayview Extension. The continuity of the Belt Line bikeway will be dependent upon the completion of the segment between lower Rosedale Valley Road and the lakeshore.

Figure 8 provides a suggested routing based on knowledge of the site. Engineering problems are encountered in virtually all the options considered because of the complete absence of green corridors or other open spaces along the highly concentrated network of vehicular and railway traffic lanes in the lower Don Valley.


DANFORTH AVE.
DON VALLEY PARKWAY
DON RIVER
EXISTING DON VALLEY BIKEWAY
BAYVIEW AVE.
PROPOSED BIKEWAY IN MOORE PARK RAVINE ALONG BELT LINE RIGHT-OF-WAY
CHORLEY PARK
ACCESS TO CABBAGETOWN VIA WINCHESTER ST.
EXISTING BIKEWAY ALONG ROSEDALE VALLEY ROAD
ROSEDALE VALLEY ROAD
GERRARD ST.
DUNDAS ST.
QUEEN ST.
ABANDONED BRIDGE
RAMP OR STAIRS DESIREABLE
PROPOSED BIKEWAY LOCATED BETWEEN RAILWAY TRACKS AND DON RIVER
FRONT ST.
KING ST. E.
A
B
C
D



CITY OF TORONTO
PLANNING AND DEVELOPMENT DEPARTMENT
Stephen G McLaughlin, Commissioner
URBAN DESIGN GROUP

ARCHITECT: KEN GREENBERG
LANDSCAPE ARCHITECT: WAYNE RENAUD
DRAWN BY: W.R.
DATE: SEPT. 1984

FIGURE NAME

SUGGESTED ROUTE OF THE BICYCLE PATH ALONG THE LOWER DON VALLEY

FILE NO. 788

FIG. NO.

This suggested routing includes a combination of grade separated and discretionary street trails. The route follows existing trails in Sections B and D.

In Section A, an engineering solution will be required to circumvent the narrow space available between the Bayview Extension and the cemetery.

Segment B follows existing gravel and asphalt paths around the bird sanctuary. It is linked to Segment C through a ramp extending from the pedestrian bridge over the Don River.

Segment C would follow the narrow grassy bank of the Don River between the willows along the river's edge and the railway tracks. It would be desirable to have stairs or ramps connecting this segment with Gerrard Street and Dundas Street for both security and access to adjacent areas.

A level crossing below Queen Street would be the start of the discretionary street route that would lead to the Cherry Street intersection and the existing lakeshore bikeway.

An engineering feasibility study of a proposed lower Don Valley bikeway was conducted by Marshall Macklin Monaghan Ltd. in the winter of 1982-83.

7. DEVELOPMENT ACTIONS

The most important issues related to the successful completion of the Belt Line bikeway involve the acquisition of land and/or access rights. Long-term goals must be established and planning protections put in place now so that as the easement lands become available, the entire Belt Line can become incorporated into the proposed linear park and bikeway. Completion of the entire route from the Humber River to the Don Valley will require co-operation with:

1. Borough of North York

   As discussed under the section on the "Allen Expressway to the Humber River", the route may consist of marked street routes:

   A. Allen Expressway to Marlee Avenue

   B. Between Carnavan Street and Eglinton Avenue

   C. Weston Road to Dufferin Street

   D. Along Scarlett Road from the Black Creek to the Humber River

   Constructed pathways would be required in the existing Black Creek parkland areas:

   A. Between Eglinton Avenue and Weston Road

   B. Between Dufferin Avenue and Scarlett Road

   The segment of the Belt Line from Marlee Avenue to Carnavan Street should be acquired to provide a grade-separated link; this segment is currently owned by C.N.R. and is being used by low volume rail traffic.

2. City of Toronto

   C.N.R. currently owns all the lands between the Yonge Subway and a point about 250 feet east of Mount Pleasant Road. City of Toronto Parks maintains a lease for the easement between Allen Expressway and the Yonge subway tracks. Portions of the segment from the Yonge subway tracks to Mount Pleasant Road, including a small section approximately 250 feet in length east of Mount Pleasant Road, have been leased to private individuals for parking and storage; about half of

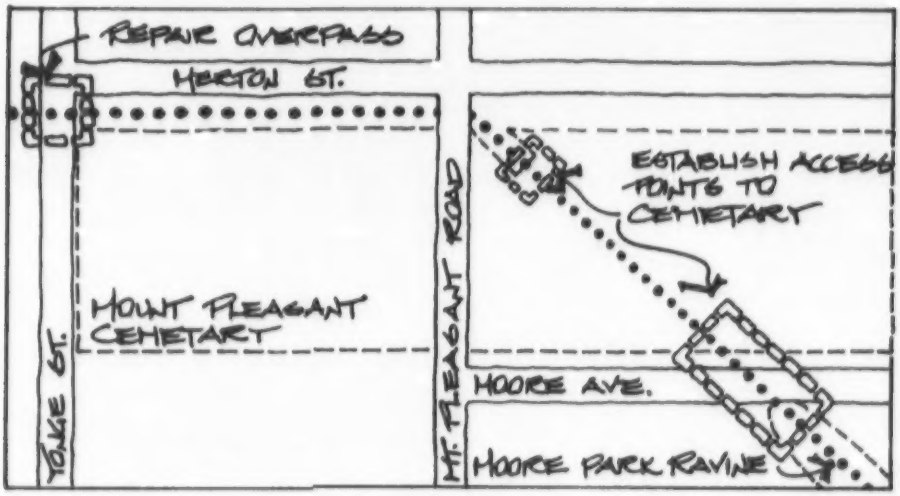
this area currently receives no use. There are thus three links required for the completion of the Belt Line within the City of Toronto:

A. Yonge Subway/Yonge Street overpass,

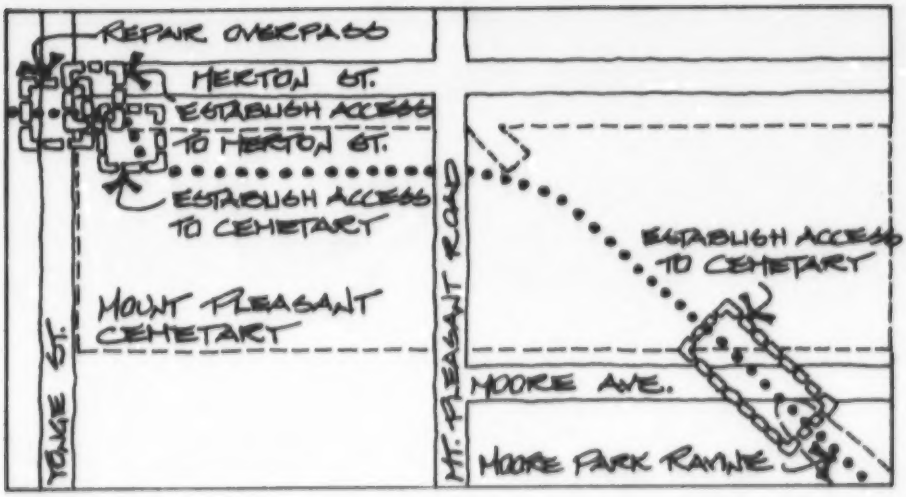
B. South of Merton Street from Yonge Street to Mount Pleasant Road,

C. Mount Pleasant Cemetery.

Ideally the route should include all three of the above connectors, with a public parkway provided along the easement south of Merton Street from Yonge Street to Mount Pleasant Road:



However, it would be possible to achieve the goal of a continuous route without the lands south of Merton Street if access is provided through Mount Pleasant Cemetery at its northwest corner:



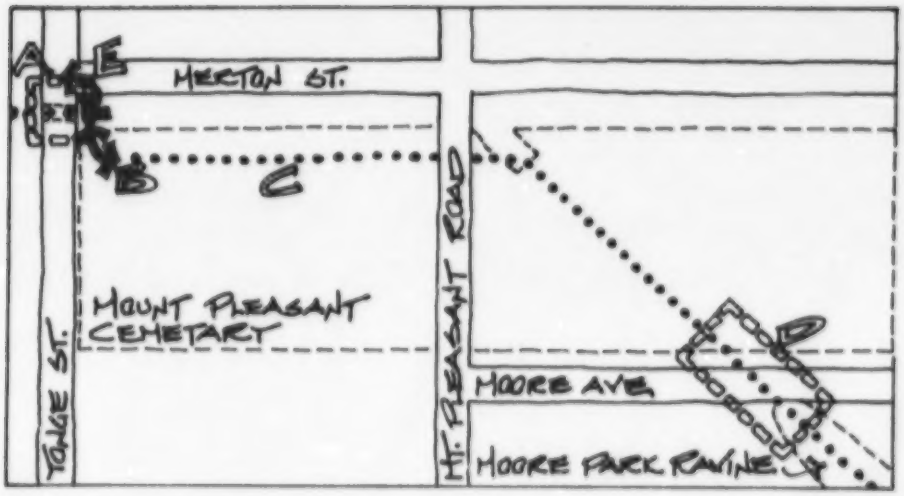
Such an arrangement would be desirable if settlement of leases south of Merton Street becomes an obstacle in completing the route. The completion of this latter phase greatly depends on the co-operation of the cemetery, and the willingness of the cemetery administration to provide access off Yonge Street. Their willingness to allow bicycle traffic to pass through the cemetery has already been demonstrated by the increased signage and bark-chip paths built in 1983. It is recommended that bicycle access off Yonge Street be considered even if the Merton Street segment is made available for the bicycle path. This would provide a route for pedestrian and bicycle traffic through the cemetery and into Upper Vale of Avoca Ravine, thus completing a circular pathway linking Moore Park Ravine, Mount Pleasant Cemetery, Vale of Avoca, David Balfour Park and Park Drive Ravine. This latter route has been suggested by previous planning studies but its total construction has never been actively pursued.

Thus the desired circulation routes near Mount Pleasant Cemetery may be completed in two parts:

Phase I (Contingent on access rights to Mount Pleasant Cemetery)

A. Repair and open Yonge Subway/Yonge Street overpass.

B. Construct access to Mount Pleasant Cemetery on Northwest corner.

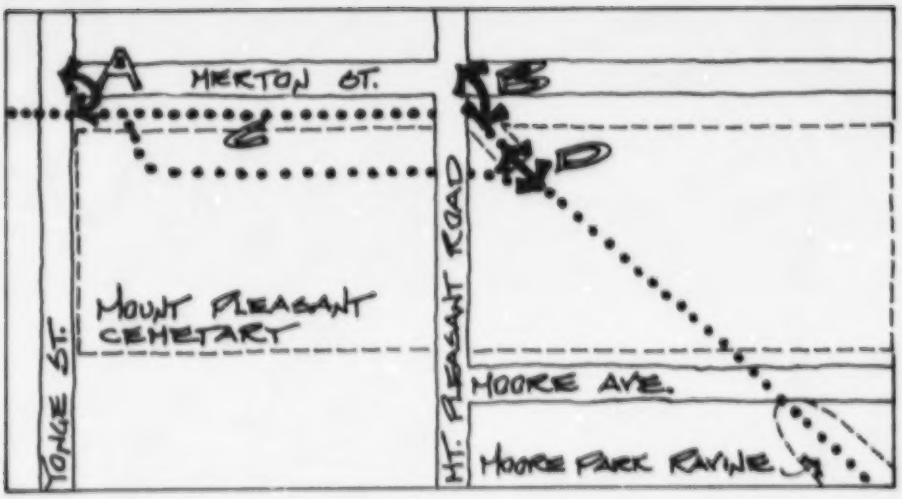


C. Complete asphalt paving of connector from Moore Park Ravine to Cemetery circulation at existing gate.

D. Mark preferred bicycle route on existing cemetery circulation roads to channel traffic through the most desirable areas. These routes must be determined in consultation with Cemetery management.

E. Creation of access from Yonge Street level to overpass level.

Phase II (Contingent on transfer of the Merton Street Lands to the City of Toronto, and settlement of the previous agreement between C.N.R. and Dominion Coal and Wood Co.)



A. Creation of Bicycle access points from Merton Street.

B. Creation of bicycle access points to the Mount Pleasant/Merton intersection. This access point is critical to provide an exit for those using the bikeway during hours that the cemetery grounds are closed.

C. Detailed design of a linear bicycle and pedestrian parkway between Yonge Street and Merton Street.

D. Establishment of an access point into the cemetery east of Mount Pleasant underpass. The actual location of the access point will depend on the route that the bicycle path will take thorugh the cemetery.

With respect to 'D; above, three alternatives, in descending order of desirability, are suggested in the accompanying map.

Alternate A Direct traffic behind the main office building, thus preventing the impression of a bicycle highway to persons visiting the office. This would allow part of the easement to be turned over to the cemetery in exchange for entry rights.

Alternate B. Direct traffic around and to the front of the main office building and cross the main roadway from the office to Mount

Pleasant Road. This alternative also allows part of the Belt Line easement to be turned over to the cemetery in exchange for entry rights.

Alternate C. Direct traffic behind the main office building. This option requires full use of the existing easement as well as construction of a greater amount of asphalt path across existing turf, hence removing some potential burial plots.

Clearly, much additional design work needs to be completed, especially in three areas:

1. South of Merton Street from Yonge Street to Mount Pleasant Road

2. Yonge Street/Yonge Subway overpass

3. Easement immediately east of Mount Pleasant Road

The following section deals with the further design and development of the Belt Line from Allen Expressway to the Bayview Extension. This list prioritizes the major conclusions of the analysis. These are in addition to those suggestions covered under the section on circulation around and through Mount Pleasant Cemetery.

1. Continue the storm sewer pipe below Railway Bridge so that runoff drains directly into the nearby storm sewer channel.

2. Establishment of a resting area (or areas) with view overlooking the Don Valley Brickworks quarry.

3. Removal of chain link fence near Allen Expressway to allow access to the Belt Line from adjacent walkways along the Expressway.

4. Widen segment of the easement from Lascelles Boulevard to Avenue Road.

5. Reconsider the design of the steep segment of easement through upper 450 feet of Moore Park Ravine.

6. Redesign the following street crossings to provide a safer means of crossing than presently exists:

    1. Bayview Extension

2. Moore Avenue

3. Lascelles Boulevard

4. Old Ridge Road

It is possible to provide long ramps and overpasses at some or all of these crossings. However, it is doubtful if the crossings at Bathurst Street, Oriole Park and Avenue Road can be made safer with the addition of any economically feasible alternative.

7. Complete regrading of the existing pathway with the addition of porous fill in areas of imperfect drainage as indicated on the accompanying maps. It is the feeling of the writer that the entire route should be maintained as an informal bikeway without the use of hard surfacing, except, perhaps in critical high use areas. The existing surfacing consists of the former corridor bed of the railway; in most areas it provides an excellent substrate for cycling. It is felt that in particular along Moore Park Ravine, the addition of hard surfacing would severely detract from the existing natural setting. Moore Park Ravine neither lends itself to a wide multiple-use pathway nor the possibility of a divided pathway separating pedestrian and bicycle traffic; the addition of hard surfacing in a relatively narrow corridor would encourage speeding and result in increased incidence of bicycle/pedestrian and bicycle/bicycle accidents. In other parts of the easement, it would be desirable to widen the bare-surface to include a pathway 12 feet wide. In most areas the existing pathway is 6 to 8 feet wide.

8. Re-survey the city lots adjacent to the easement and initiate legal actions to discourage any further encroachment on Belt Line lands especially along Merton Street and in Forest Hill.

9. Establish information stations with maps and other visual displays that relate to:

A. The Belt Line Theme

This would include displays at each of the three former stations along the route: Forest Hill, Yonge Street and Moore Park. Early photographs of these stations would assist in interpreting the changes that have occurred since the Belt Line was first constructed.

B. The Natural History of Rural and Urban Environments.

The Belt Line provides a remarkably variably cross section of wildlife habitats:

A. Light industrial - west of Marlee Avenue to Carnavan Street

b. High Density Residential - Marlee Avenue to Eglinton

c. Low Density Residential

d. Cemetery

e. Urban Park (Chorley Park)

f. Natural Ravine Habitats

(i) Oak-Maple

(ii) Black Willow riparian

(iii) Forest clearing/forest edge

(iv) Southern hardwoods

(v) Woodland pond

C. Special Features

Eglinton Avenue

Yonge Street

Yonge Subway and History

Mount Pleasant Cemetery and History

Don Valley Brickworks Quarry (tentatively)

Chorley Park and History

To conclude, it is recommended that work begin immediately:

1. To secure long-term access of Belt Line lands;

2. To begin discussions with representatives of Toronto Trust Cemeteries to establish

additional access points to Mount Pleasant Cemetery;

3. To renovate the Yonge Street overpass in order to accommodate pedestrian and bikeway traffic.

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APPENDIX A (A Summary of Woody Plant Communities in Moore Park Ravine (From Wainio et al 1974).

In Moore Park Ravine from the northern end at Moore Avenue southward to approximately the location of transect #5 (see Appendix Map A-A) the most abundant tree species is the Manitoba Maple (Acer negundo L.). This rapid growing species, which is capable of reproducing from both seeds and sprouts, is moderately tolerant of shade and forms a major component of both the overstory and understory throughout the area.

Along the banks of the small stream which wanders through the ravine the Manitoba Maple is also found but the Black Willow (Salix nigra Marsh.) must be regarded as the dominant overstory species. This species towers over the other vegetation and closely adheres to the winding course of the stream. Black Willows are fast growing trees which are intolerant of shade and prefer sites close to bodies of water. Alternate-leaf Dogwood (Cornus alternifolia L.), White Ash (Fraxinus americana L.), as well as Manitoba Maple constitute a large portion of the understory along the water course.

Another location where the Manitoba Maple is generally replaced as the dominant overstory species within this northern zone, is along the upper edges of the ravine. A narrow band running along the top of the ravine on either side is occupied primarily by hardwoods such as Sugar Maple (Acer saccharum Marsh.), Norway Maple (Acer platanoides L.), Red Oak (Quercus rubra L.), White Oak (Quercus alba L.) and American Beech (Fagus grandifolia Ehrh.). In these two marginal zones Manitoba Maple, Choke Cherry (Prunus virginiana L.) and Witch Hazel (Hamamelis virginiana L.) comprise much of the understory.

It should be noted that the data plotted on the transect profiles does not always appear to confirm what is stated in the text of this report. For example, the symbol for red oak appears only once in the zone near the extreme edge of the ravine, north of transect #5, where it has been stated that it forms one of the more dominant species. It must be remembered that such statements are based on personal observations made between the transects as well as along them, and that the transect data alone does not express close agreement in every instance. A much greater number of transects would be required for this to be the case.

In the zone which extends from transect #5 to transect #11, at the southern end of the study area, the patterns

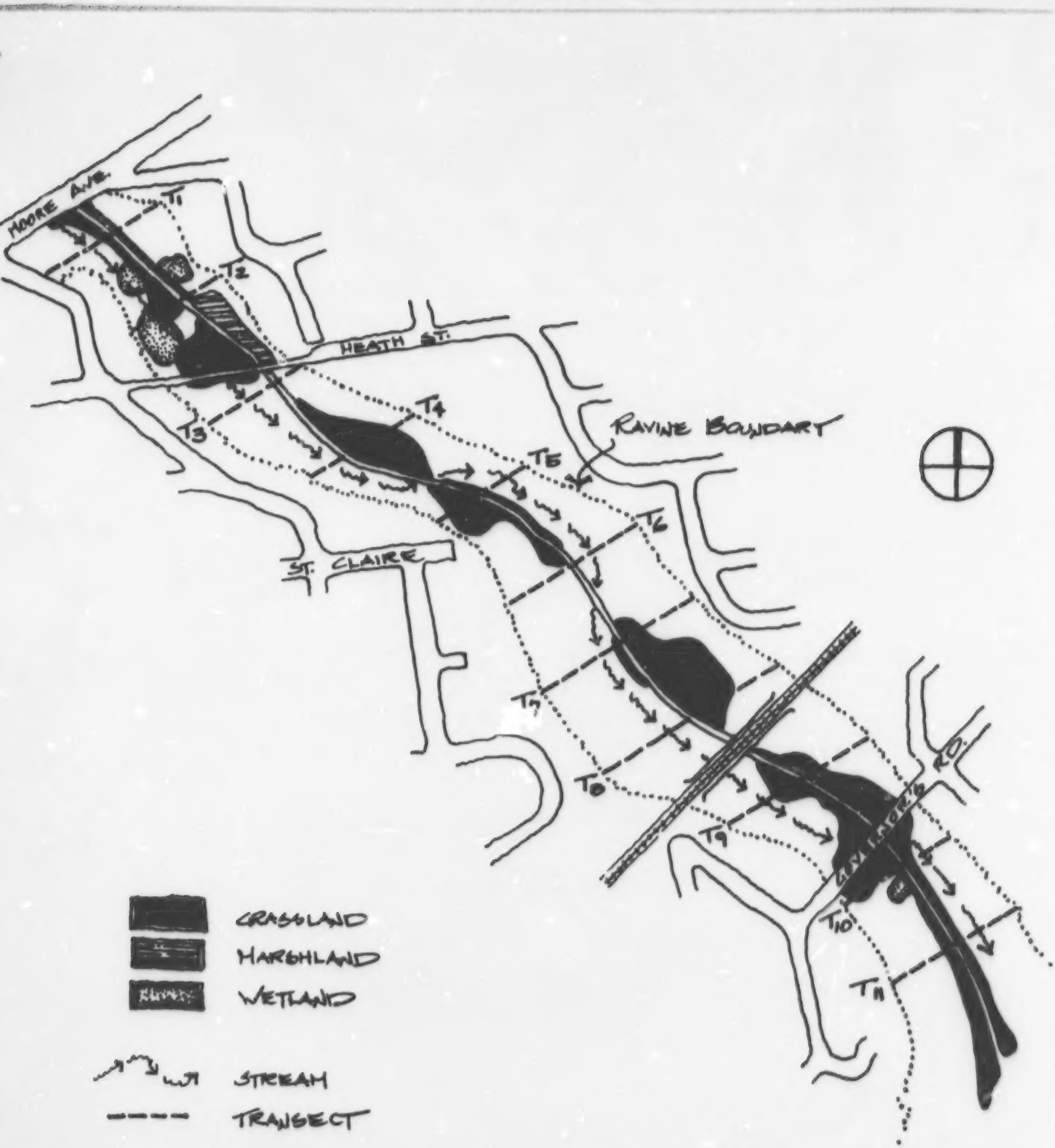

Figure A-A Transect locations and habitat map of Moore Park Ravine. (Adapted from Wainio et al 1973). Note that the legend keys for grassland and wetland were reversed in error on the original map in Wainio et al, but have been corrected here.

of vegetation which have just been described for the more northern section undergo gradual changes. On the uppers slopes, as in the northern section, the dominant overstory species are primarily hardwoods such as Red Oak, White Oak, Sugar Maple and Norway Maple. Moving southwards from transect #5, however, these species occupy an ever widening zone which extends further and further down the side slopes of the ravine. This trend appears to effectively reduce the area available for species such as the Manitoba Maple and its numbers diminish quite noticeably. In general, it is confined to being a dominant or co-dominant species only in the understory near the stream and in the overstory within a narrow zone on either side of the access road which traverses the base of the ravine. Along certain sections of the gravel road other species such as Staghorn Sumac (Rhus typhina L.) or Balsam Poplar (Populus balsomifera L.) replace the Manitoba Maple. Black Willows continue to follow the course of the small stream and constitute the dominant overstory species in that narrow band. Witch Hazel, Roundleaf Dogwood (Cornus rugoso Lam.) and Choke Cherry form most of the understory in the hardwood zone while Mountain Maple (Acer spicatum Lam.) and White Ash combine with Manitoba Maple to form a dense understory near the stream.

The location, abundance, and associations of each species found in the ravine cannot possibly be dealt with individually in this relatively brief discussion. A few small areas, within the larger zones of Moore Park Ravine which have already been described, are sufficiently unique, however, to warrant further consideration here.

The first such area is a wetland zone located north of Heath Street near the west end of transect #2. The soil in this area is extremely wet and peat-like in texture at the surface with black muck underneath. The ground cover is characterized by horsetails and ferns, while Balsam Poplar, Alternate-leaf Dogwood, White Ash, Eastern Hemlock (Tsuga canadensis (I.) Carr.), White Birch (Betula papyrifera Marsh.), Yellow Birch (Betula alleghaniensis Britton), and Pussy Willow (Salix discolor Muhl) comprise most of the larger vegetation in this very diverse zone.

A somewhat similar area is positioned just north of the Heath Street Bridge on the east side of the access road. This area, however, is not as wet as the one previously described and the soil is considerably firmer. On this site Pussy Willows and Heart-leaf Willows (Salix rigida Muhl) form the understory, with Balsam Poplar, White Birch and Staghorn Sumac comprising the overstory.

In contrast to these two wet areas there are several drier sites in which the vegetation differs quite noticeably from the more general pattern of vegetation.

On the east side of the access road, in the vicinity of transect #4, and on the west side of the road at transect #5 the landscape is chiefly composed of large chunks of concrete from dismantled roads and sidewalks. This material was dumped into the ravine to stabilize the soil and it forms a relatively steep side slope. Much of the concrete has become covered over with a rather thin veneer of soil. Groundhogs are frequently observed using the protruding hard surfaces for sleeping on during hot, sunny weather. A dense mat of grasses and a wide variety of other herbacious plants form the groundcover over these Manitoba Maples and Black Locusts (Robinia pseudoacacia L.).

Another small, but very interesting, area of vegetation is found on the west side of the access road a short distance north of transect #6. In this location a number of White Poplar (Populus alba L.) are growing in association with White Ash and Balsam Poplar, Pussy Willow and Heartleaf Willow form most of the understory on a groundcover of grasses. White Poplar is a species which is native to Eurasia. It was introduced to North America for use as an ornamental shade tree. In shape, its leaves resemble those of our native Large-tooth Aspen (Populus grandidentata Michx.), but the undersurfaces are covered in long white, woolly hairs which give this species its name. It is a species which generally reproduces by sprouting from roots and stumps and it has become widespread throughout some areas since being introduced.

White Poplar is not the only exotic species found in Moore Park Ravine. Several tree species were observed which were not native to Canada. In some instances only a single specimen was observed, but in others a naturalized exotic species formed a major part of the forest cover. Norway Maple is a good example of this latter case. It is, of course, not surprising to find many introduced species of trees and shrubs in the so called "natural areas" that are contained within large urban centres such as Toronto. A large number of these species are cultivated in nurseries and sold for ornamental purposes. Many of these thrive in their new environments and produce viable seeds or sprouts from roots that further aid in establishing the species. Frequently exotic species "migrate" by means of these reproduction processes from private backyards into adjacent ravines. In addition, many are intentionally

planted within green areas by parks officials for aesthetic reasons, or to provide food and shelter for wildlife. In some cases an introduced species may grow much better on a given site than a similar native species would. The end result is that ravines and other urban natural areas often display a much greater variety of vegetation than would normally be expected. New species are constantly being introduced both intentionally and by chance. In fact, few truly natural areas, within the same region, can boast the diversity of plant life that is found in many green areas located in urban settings.

Another unique vegetation zone is located on the east side of the access road between transect #7 and transect #8. At this site, on the bottom of the ravine and on the lower slopes, there is a group of trees scattered over a relatively open grassland groundcover. The two main tree species are Eastern Cottonwood (Populus deltoides Bartr.) and Balsam Poplar. These two species have apparently crossed to produce young hybrid trees whose characteristics are partially representative of each of the two parent species. Poplars tend to hybridize quite readily with one another when they grow in close proximity. Thus, natural processes, as well as artificial ones, are often at work which further increase the variety of vegetation in these green areas. In turn, the variety of vegetation may also influence the diversity of wildlife which makes use of an area. Green areas such as Moore Park Ravine, therefore, are ideal locations for observing a remarkable assortment of fauna and flora.